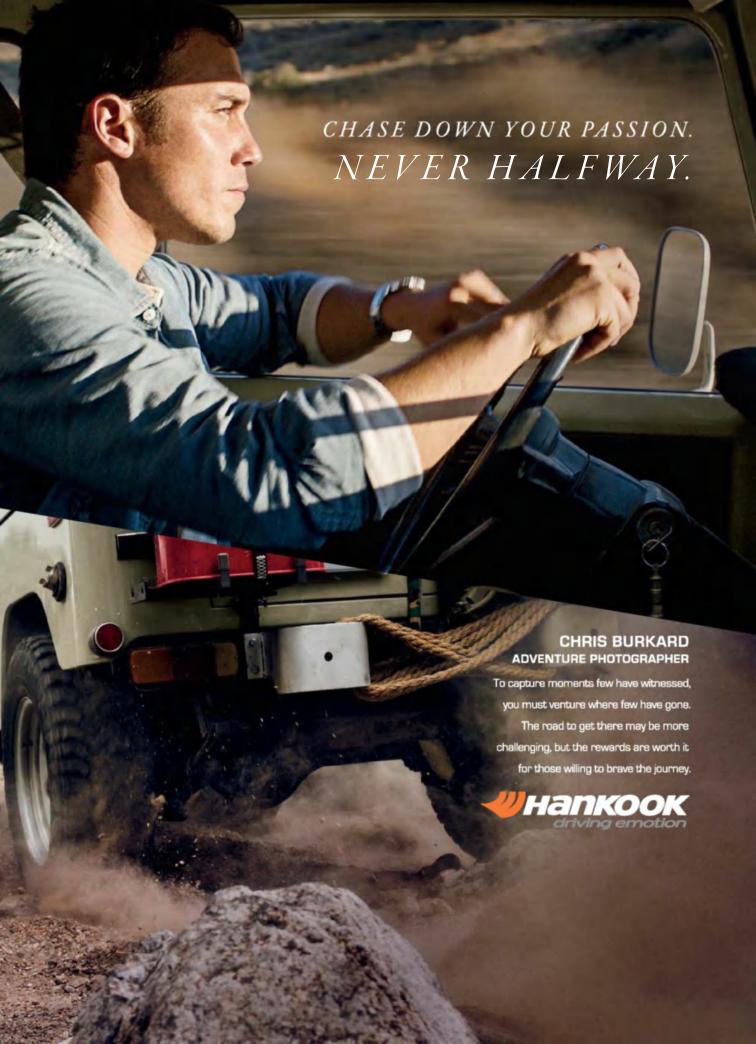
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The Land Rover Defender is going away, but not before we make waves in it one last time



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EDITOR'S LETTER



VOLUME 30. NO.10. JANUARY 2016

WHAT YOU SEE

IVEN THAT ROBERT CUMBERFORD IS THESE days usually ensconced in his fabulous French

farmhouse, it's not often I see him face to face. Rarer still is a chance for us to walk around a car, where I can watch the man work.

I had such an opportunity recently during the Los Angeles reveal of the Hyundai Vision G Coupe Concept, this month's "By Design" subject. Like many of us in attendance, I fixated on the door handle, which is (gasp!) not on the door.

While Robert had more than a few objections to the Vision G's overall execution, he actually thought the handle's placement in the panel next to the door an intriguing conceit, which surprised me. Indeed, eyeballing the car was another lesson in how Cumberford and other designers see things.

As we chatted, he pointed out a boomerang-style line in the rear panel, a detail that emerges when the light hits the car a certain way. I never would have noticed it or several other details people with trained eyes such as Cumberford locate easily and appreciate. You don't necessarily see these little touches at first glance, but they often elevate a design from good to great.

Sadly, there seems to be very little time these days to appreciate much of anything. Our culture is built increasingly around making snap judgments. Aided by the anonymity of the Internet, we're far too quick to take sides and flame other people rather than stand back and soak up what we're reading, hearing, and viewing.

Nowhere is this more prevalent in the automotive realm than with design, specifically the endless kyetching about a car's exterior lines. It makes sense to a certain extent, of course: No matter what the discipline, design is utterly subjective—eye of the beholder and all that. Since I've been in this business, the No. 1 online comment is always a screed about exterior style. (No. 2 is "My favorite car outperforms your favorite car.") When the piling on begins, look out. See: Bangle butt, Acura beak, etc.

Just ask Toyota. It's finally making some bold design statements after being criticized in recent years for being too beige, and it has been lambasted for its efforts. There's a middle ground in there somewhere, but the Japanese automaking giant is having a hard time finding it. Enthusiasts have savaged Toyota's recent Mirai hydrogen vehicle and next-generation Prius designs, with armchair Cumberfords crawling out of the social network to hammer multiple elements of each car, especially their mug shots.

Then there's the other mug, the "Predator" grille of its

Lexus brand vehicles. (I like it. Sue me.) Auto journalists and a chorus of haters have ripped it for years and wonder if the brand is playing with fire with the redesigned Lexus RX, its cash-cow crossover. The question is legitimate, but the market will ultimately decide if the move was wise or not.

As my evening spent viewing the Vision G with Cumberford proved, how you see a vehicle in a real-world environment can make a huge difference in how you look at it as a whole. Beyond the initial shouting from the keyboards, our opinion of a vehicle can change over time for the betteror worse-depending on how it's viewed when it hits the streets. For example, I wasn't all that enamored with the Mercedes-Benz CLA in photos but changed my mind once I saw it in person.

This month Monsieur Cumberford also opines on our Design of the Year, the Ford GT. Of all the cars he saw in 2015, the GT moved him-and us-very quickly, with its flying buttresses in all the right places.

We're going to make a much bigger deal out of Design of the Year, which will become a staple of each January issue. We hang our hat on telling compelling stories around design, and the award will serve as another way for us to highlight the best of automotive style and what constitutes a truly welldesigned vehicle, inside and out.

We know many of you will wholeheartedly disagree with our choices. That's OK with us, especially if those dissenting voices are delivered with passion—and class. Whether you're a fool for a perfectly designed cupholder (you know the kind: fits your favorite to-go mug, doesn't get in the way of your elbow) or a fan of an expertly executed beltline, we want to hear from you.

We know it's that diversity of opinion, the subjectivity of it all—and details that only emerge in the right light—that makes design so compelling.

How much does design influence the type of car you buy? Let me know at letters@automobilemag.com.



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"This is my jeep. I've had it for 35 years. It's an American Willys MB, built in 1942 for the American Army. I come down here in it every year."

"It's the only place in the world where you can experience this kind of stuff. Everyone is dressing up. This is the cream you see, the top-class cars you can find from everywhere. Everything is just right."

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SOUDWOOD / BMW & McLAREN / WATCHES / MODEL X / LETTERS / ST. ANTOINE / KITMAN / CUMBERFORD

HUMANS of GOODWOOD

Meet the passionate people who make Goodwood Revival an event you'll want to attend

"I sing mainly '50s stuff. A bit of rock 'n' roll, some slow stuff. I like the older stuff. It's good fun."

"I like the airplanes. I quite love the Spitfires and the Mustangs. My favorite bit is that they shoot bullets."





"She's getting victory rolls, a 1940s style that's quite high and involves a lot of backcombing and strategically placed hair grips, and it looks fantastic. She's going to be windproof; it's a bit blustery on site today, isn't it?"

"I have an ambition to race here in the next five years, but she and I come now to watch our friends race. My favorite car here is this one, the Ferrari 500 TRC from 1957. You can see them racing on track in this bizarre fast-forward from the '30s and '40s and '50s. It's quite unique."

01 . 2016 . **15**

PHOTOGRAPHY BY MARTYN GODDARD



t's not just the vintage cars or motorcycles or planes that attract

us to the Goodwood Revival, the three-day event that takes place each September in England. It's not the World War II fighter planes that fly around just before some of the most storied racing cars in history cut it up on a 2.4-mile circuit, run into each other in chicanes, and have gut-wrenching wrecks. No, it's the people.

Legends of racing mingle with famous actors and find perfect anonymity with common folk, as everyone is dressed in traditional outfits that recall simpler times of the last century. You'll see people in herringbone tweed, flannel suits, rockabilly leathers, poodle skirts, pencil dresses, and military uniforms. The cars, crashes, and jubilant chaos are great, but it's people who attend the Goodwood Revival who make the weekend unforgettable.

"Look around. The friendship, the people, the cars—it's a coming together of lots of things. You can come here as a petrolhead or someone with a passing interest or with no interest in petrol and have a great day. It captures it all. I've never had such a great weekend."

"At my age, I wouldn't wear a miniskirt from the 1960s. I did then—I certainly did then—but my daughters look better than I did."





"The babysitter counseled this, honestly, but it's nice to bring Henry along to his first Goodwood. It's kind of his second, because he was here in Mommy's tummy 12 months ago, but this is his first proper motorsports event."

"We do '65-style dance. It's a very organic thing. There are no set movements. Everything is angular. It's an exquisite thing. Girls tried to be a bit more sexy with it, as part of the youth revolution of the 1960s, and the whole thing is exquisite."

"I've had the car six or seven years. I've been racing it this weekend. That's what it was made for, not sitting in the garage. It's a handful, it's heavy—the steering, the clutch, the braking, everything. It's a fast car. A little bit frightening, I must say, but it's always a great pleasure to drive."

Ignition 16. AUTOMOBILEMAG.COM. 01. 2016

"You look at it and think it's an old monster or whatever, but it's actually pretty friendly. It slides nicely, and you've just got to be committed, ultimately. The consequences of anything going wrong in a car like this at 120 or 130 mph—you don't want to think about it. I'm lucky enough to be allowed to drive the car for someone else. She pays all the bills, and I end up driving the car."

"THIS IS THE ONLY EVENT IN
THE WORLD WITH AIRCRAFT AND
CARS AND PEOPLE AND BIKES AND
SHOPPING. YOU DON'T GET IT
ANYWHERE ELSE. BRING A PICNIC,
CHAMPAGNE, AND SOMETHING
TO SIT ON."

"The wink back to history and the atmosphere that the family here, the owners, create and how personally they take everything is fantastic. The event is three days. If you're here only for one day, you'll come away and haven't seen half of it."





"IT'S MY BIRTHDAY NEXT WEEKEND, SO I DECIDED TO MAKE ALL THE GIRLS COME HERE. WE'VE TRIED TO COME FOR A COUPLE YEARS BUT NEVER GOT TICKETS. THEY SELL OUT VERY QUICKLY, SO I MADE SURE I ASKED THE GIRLS AND GOT THEM REALLY EARLY, AND WE ALL WENT SHOPPING."

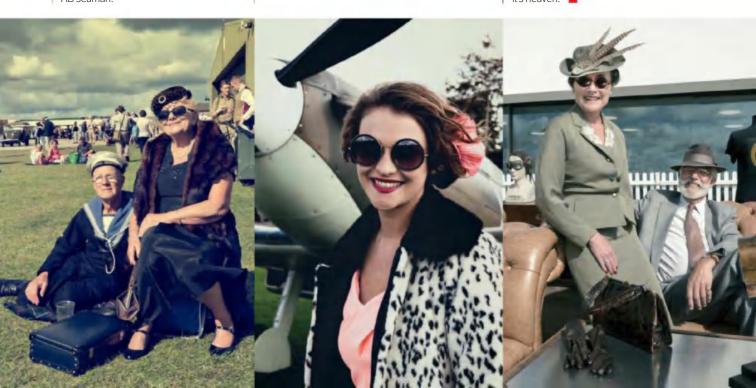
"We work on the flight line, driving in people who come in by plane or helicopter. We get to see a lot of very famous people. Meeting people you see in the movies, on the telly—you meet all sorts of people here."

"My grandfather was in the Royal Navy from 1898 to 1921, but this isn't his uniform. This a World War II uniform. It's just nice to join in. Everyone wants to be an admiral or captain, but it's nice to be an ordinary AB seaman."

"I'M ATTRACTED TO THE ATMOSPHERE AND THE HISTORY AND THE TIMES YOU CAN EXPERIENCE. YOU'VE GONE SO FAR BACK, HAVEN'T YOU? OUTSIDE OF HERE, EVERYONE SITS ON THEIR PHONES AND IS CLOSED OFF. HERE, YOU GO BACK AND EVERYONE IS FRIENDLY."

${\tt O1.2016.17}\ /\ Humans\ of\ Goodwood$

"It's electric. You've got the airplanes, the motorbikes, the racing, the cars—even in the car park are Ferraris and Aston Martins, Bentleys, Rolls-Royces. You meet lovely, like-minded people. The food, the champagne—it's heaven."



A

s the music pumped and the lights flashed in the dark warehouse, Elon Musk came onstage in front

of hundreds of Tesla enthusiasts and did that Silicon Valley strut, as all tech executives since Apple's Steve Jobs have learned to do. And now that the number of cars Tesla sells each year is closer to 50,000 than 5,000, the performance seems kind of charming. And it became even better when Musk beckoned the Tesla Model X onto the stage.

First revealed as a concept car in February 2012, the Model X is now trickling into production, and we had a chance to drive one around the block, which by circumstance happened to be Model X no. 001, Musk's own car. Like the dualmotor, all-wheel-drive version of the Model S sedan upon which it is based, this three-row crossover utility is bigger than it looks. Never-



theless it looks pretty great, combining sleek modernity with that hint of anonymity you find in inspired product design, more iPhone than Bentley Bentayga (thankfully).

Just as with any crossover, the people packaging is the most important thing here, and the Model X seems spacious when you take the wheel. The windshield rises up before you, and the largest piece of glass in the car industry, we're told, extends overhead. It has multiple gradations of tint to protect you from the sun. (From the inside it looks layered like tiramisu, Musk said with a laugh.)

The second row can be specified with two- or three-across seating, and the seats have an extraordinary amount of fore-and-aft travel to afford lots of legroom and convenient access to the twin fold-flat seats in the rear. Then there are the double-hinged "falcon" doors, which hang

from a cast magnesium support that runs along the spine of the roof. They employ sensors to deploy in one of two different arcs, so only a foot of clearance to the side is required for operation while overhead clearance isn't really an issue either.

The Tesla Model X P90D Signature we drove weighs a mighty 5,441 pounds, yet this dual-motor (259 hp front; 503 hp rear) package will get to 60 mph in just 3.8 seconds (3.2 seconds in "Ludicrous" mode). More important, the platform's low center of gravity with all those batteries in the floor means the Model X drives with more agility than you'd guess. Of course, the Tesla Model X also comes with a mighty price tag, as the complexity of its design and manufacturing will call for about \$5,000 more than a comparably equipped Model S, likely starting between \$90,000 to \$100,000 before incentives.

EV SUV: The Model X



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Look
for it at the
2017 Frankfurt
auto show



next-generation McLaren 650S. About a year ago, BMW's recently discharged chairman, Norbert Reithofer, nixed the plan for the BMW M100 supercar, a lightweight, mid-engine two-seater with a 750-hp, twin-turbo V-8 and

but the tie between the two all

so we thought. Word is BMW

a new halo model, a supercar

that would be based on the

but withered away after that. Or

has gone to McLaren for help on

adaptive aerodynamics, as well as a concessionary proposal that would have rebodied and retooled a BMW i8. So Klaus Fröhlich, head of BMW research and development, met with McLaren in hopes of creating a high-performance halo car for BMW that would complement—not challenge—the i8. The idea of building a BMW-branded supercar based on a McLaren carbon-fiber monocoque that wouldn't tarnish the brand image of either BMW or McLaren came to life, and the project is now underway.

BMW plans to use its new 4.0-liter V-8 engine fitted with four turbochargers—two exhaust-driven, two electrically operated—and the total power output could be tweaked as marketing requires, with the stillborn M100's 750-hp mark set as the baseline for now. (At the moment, a plug-in hybrid or fully electric version is not on the agenda.) A coupe has first priority, but a convertible might also be in the cards. The start of production is penciled in for late 2018, which means the timing could be right for BMW to take advantage of McLaren's updated sports car architecture, which will be going under the next McLaren 650S.

The suspension, steering, and brakes on this still-nameless joint venture will be of McLaren design, but it should be dialed in with a BMW-specific calibration. BMW design cues will be worked into the exterior and interior so the message of this supercar won't be reduced to a BMW-powered McLaren. Think custom door treatments, unique aero concepts, and BMW-supplied infotainment, connectivity, and assistance systems. The plan is to reveal a concept car at the 2017 Frankfurt show and to have the production version, priced well above \$225,000, at dealerships for model year 2019.

THIS BMW SUPERCAR is far from a sure

thing and might come to nothing, a bright bubble bursting in frustration. BMW M boss Frank van Meel wasn't happy when he found out Fröhlich had been talking to McLaren, seeing how van Meel wants his team to design and engineer the new supercar, not McLaren. But at the moment, odds are good that the BMW-McLaren project will happen. The partnership has a lot of the right elements for success: low entrepreneurial risk, substantial customer benefit, great brand support, and ultimately two fatter bottom lines. Seems like the bond between these two automakers might soon be stronger than ever before.



Introducing the new V1





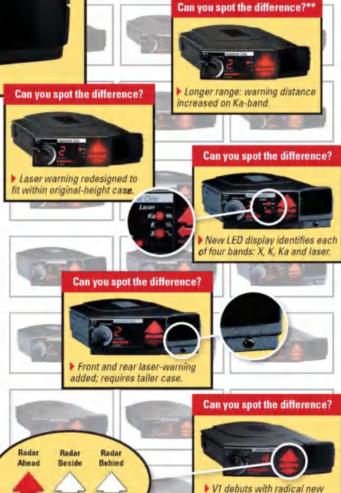
The first V1 detail you see—the Radar Locator: It's a Valentine One invention. Where's the radar? Or laser? A red arrow points to the source.

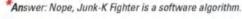
But you can't see "Continuous Improvement."
We don't do model changes. Instead, when we have a new trick, it goes into V1 immediately.

All new components inside. Over the years, our engineers have made 26 major performance revs inside V1. In effect, they've changed everything. We want our customers to get our very best ideas as soon as we can build them.

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Junk-K Fighter is built into every new V1. Can we build one for you?





***Answer: Nope, but V1 owners sure know it's there.

1992



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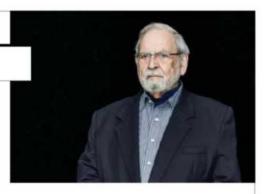


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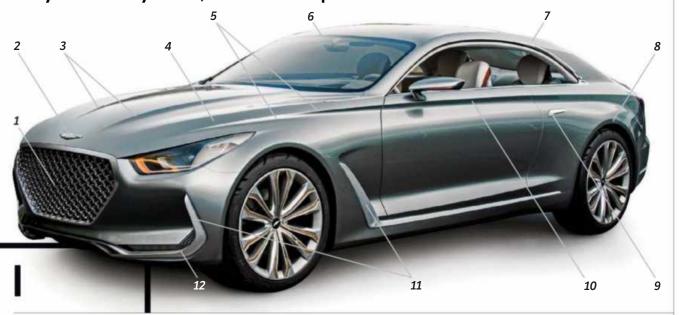
feature—the Radar Locator.

BY DESIGN

HYUNDAI VISION G COUPE CONCEPT



Way too many lines, but serious potential



t was a nice occasion, totally

unexpected: a chance to see a new concept car before any public presentation. The invitation was especially attractive since the car was coming from Hyundai, a firm with two top designers in charge, Peter Schreyer overall and Chris Chapman heading the California studio. Even so, my initial reaction to the car was, "How could this happen?"

Reflecting later, I know how: Someone unqualified got between the creators and the car. The best designers in the world can't save a project if an executive with more influence than design sense is somewhere in the decision tree, imposing his uninformed will as a sign of power. I know of a European project where the design's graceless rear was imposed by the chief executive, the awkward front by his successor.

The result: essentially unsalable. I suspect something of the sort happened to the Hyundai Vision G.

That there should be a rear-drive coupe equivalent of the V-8 Genesis sedan is obvious, and there is surely a market for a car costing thousands less than roughly equivalent German-name coupes. But I wonder if the Vision G would sell well without a substantial styling cleanup. It has far too many lines, too many odd surface changes, and the derivative grille is too coarse. The glazing is also disproportionately small for such a big, bulky exterior, but that's the style these days, so someone must like it.

Still, I found the interior design really pleasant because of its simplicity and clarity. Colors, materials, and detailing were all superior. The quantity of knobs and buttons and switches was minimized, and if there was no particular excitement about the cabin, there was the strong sense it would be a good place to be on a long trip.

Others present at the unveiling of this car at the Los Angeles County Museum of Art (where Hyundai is a longtime sponsor) before its appearance on the concept lawn at Pebble Beach were nonplussed by something else. It seemed too small to so polarize Southern California's automotive journalists, people more exposed to automotive novelty than any group in the world. But about half freaked out over the location of the door handles.

They're on the body rather than the door panel itself. That seems very intelligent, as you normally stand outside the opening arc of the door and pull the door itself toward you, so it's between you and the opening. Unfortunately, you would go farther out in the street to go around the door and enter the car. That's not a pleasant prospect in heavy traffic. This door is powered open, like some SUV hatches, so you stand behind it then walk forward to enter, not getting any farther into traffic than the door itself. If manufacturers use a wireless network within a car to operate various functions (which I think will happen soon), the door latch and the handle need not connect in any way, not even by wire. To eliminate yards and pounds of a wiring harness would be a great progress. So the odd detail that caused the most negative commentary may well be the single most important feature of this Hyundai.

FRONT 3/4 VIEW

- 1. The grille: too big, too Bentley, so too bad. But the perimeter is actually rather nice and integrates with the headlamps better than most grilles do. So apart from the texture, give it a pass.
- 2. This badge, too, is reminiscent of a certain Cricklewood insignia. Isn't there some graphically resplendent Korean letter or sign that could proudly stand for Hyundai?
- **3.** These lines defining a bulge on the hood are once again evocative of past British practice, this time by Jaguar.
- **4.** This near-vertical wall fades before it reaches the grille rim (forward) or the A-pillar (aft).
- **5.** A pair of confused and confusing lines, with the one on top of the front fender ending just below where one created by an undercut coming off the rear fender fades to nothing.
- **6.** The windshield seems rather small for a big coupe. The lack of anything but a black band defining and separating it from painted surfaces seems a little cheap.
- 7. The roof profile is more sedanlike than the form that usually describes a true coupe. It does, however, allow really good rear headroom.
- **8.** The flat band around the circular rear wheel opening terminates a bulge that comes from the rear fender profile imposed on the body side and stops at the rear door cut.
- **9.** The defining feature for the naysayers and those not too deeply conservative in their design sense. Yes, I like it and hope to see it again on many cars.

- 10. The shadow created by the fairly tight radius in the metal above the undercut that starts at the forward peak of the taillight makes for a really nice spear shape on the body side, achieved without appliqué trim.
- 11. Similar brightwork elements frame the round wheel opening in a soft-topped parallelogram that appears created by the hockey-stick sill trim piece.
- **12.** It's perhaps a bit convoluted, but the bumper brightwork is a rather nice graphic element on the dead-on front end.

REAR 3/4 VIEW

- **13.** Four longitudinal ribs in the roof define the CHMSL bump and inset the roof from the body sides before fading into the decklid.
- **14.** A very odd joggle in the skin above the taillight seems more mistake than feature.
- **15.** The backlight seems unreasonably small for a fairly big car like this and provides only very poor rearward visibility. A bump-up in the upper profile accommodates the CHMSL.
- **16.** This soggy line from taillight to taillight is hard to understand. It might decrease the liftover height for the trunk, but it clashes with other curves above it
- 17. Another really odd line, this flattened arc recalls the imitation "Continental kit" shape embossed on Lincolns for far too long, intersecting with the taillight opening rib.
- **18.** The trapezoidal indent for the license plate is subtle but breaks up what could have been a clear horizontal band on a rather messy rear view.
- 19. The exhaust outlets under the



horizontal bright trim strip look like the unconstrained work of the designers, a nice graphical composition.

- **20.** Two negative surfaces intersect peculiarly. One separates the body sidewall from the bulge; the other, the bumper top surface from the bulge.
- **21.** A pretty big bulge out of the body side to the wheel opening vertical band is not particularly attractive.
- **22.** I don't question the placement. I do question the unusual irregular profile of the bright door command and its orientation, seemingly unrelated to any line or feature of the car.

INTERIOR VIEW

23. The light-colored headliner gives a sense of spaciousness despite a rather

small windshield and backlight.

- **24.** The side panel trim is refreshingly simple but also good in conveying a relaxed dynamic suggesting comfortable movement.
- **25.** The steering wheel center recalls Spielberg's E.T. perhaps, but it's good not to have the perpetual center circle. Good design choice for a non-sports car.
- **26.** Really refreshing main panel with clear horizontal lines to the glare shield and a sensuous wooden section that frames the read-out screens above
- **27.** So few knobs and buttons! I hope others will copy this drive for simplicity.
- **28.** Apparently a little cubby for sunglasses, gloves, other small items. Good idea.



THE ASPHALT JUNGLE

DINNER AT 8 ... MPH



HENEVER I FIND MYSELF

consumed by yet another crush of Los Angeles gridlock, I'm always reminded of that sly line by the late Yogi Berra: "Nobody goes there anymore. It's too crowded."

That's the thing about the City of Angels: You could move, but there's too much great stuff here—the idyllic weather, the Getty museum, the window displays at Trashy Lingerie. And so, after a quarter century as an Angeleno, I've perfected driving in a place where millions of others also want to be. I thought it might be helpful to share Arthur's Traffic Survival Guide.

"Try audiobooks," a friend suggested long ago. "It's a great way to catch up on Tolstoy, Melville—all the classics."

That sounded like a fine idea, so I downloaded "Fifty Shades of Grey." Things went OK for the first few miles or so. Then came the part where Anastasia finds herself in an elevator with Christian: "Before I know it, he's got both of my hands in one of his in a viselike grip above my head, and he's pinning me to the wall using his hips. ... His other hand grabs my hair and ..."

Wham! I smacked into the bumper of the car ahead of me. The driver got out and walked back to my window. "I'm sorry," I said to him. "I was listening to an audiobook and ..."

"'Fifty Shades of Grey'?"

"Uh, yes. How did you ..."

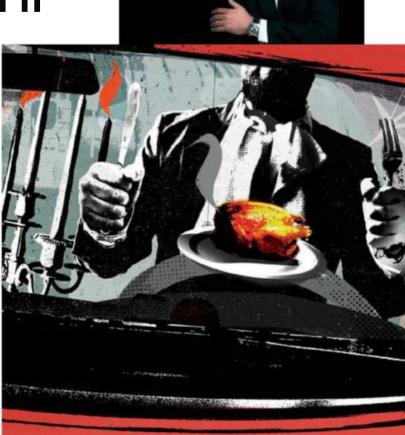
"I hit somebody last week," he said with a smile. "It's OK, buddy."

Choosing the right audio book is vitally important. Donald Trump's "The Art of the Deal" works extremely well. I listened for a while, and the next thing I knew I woke up parked in a median. The first chapter was over, and by then all the traffic was gone.

Eating in the car is underrated. I'm not talking about wolfing down an Egg McMuffin while balancing a Vivarinenriched orange juice on your knee. With L.A.'s glacial traffic, there's plenty of time to enjoy a four-star dining experience behind the wheel.

The first time I tried this, I was southbound on the 405, crawling back to the office after a noontime appointment in the Valley. In previous years, my stomach would have been churning at being stuck in the crushing gridlock. But by now I was eagerly anticipating the five-course lunch I'd arrayed on the passenger seat.

Near Granada Hills, I commenced with a lovely consommé, taking care not to let the bowl spill onto the speedometer. By Van Nuys, I had moved on to the salad, which was so savory I didn't even mind when an overzealous stab of the brakes sent a chunk of goat cheese tumbling down an air vent. The Cornish game hen I ate near Sherman Oaks was also delicious, though it was a bit hard to slice without tipping over the candelabra. All this time, I hardly even noticed the traffic. In fact, after



enjoying a leisurely dessert and coffee while crawling over the Sepulveda Pass, I was almost irritated when things began to speed up. Still, I had enough time before reaching Brentwood to smoke a massive Montecristo. Then I got to my office and took a nap.

Your car is also a great place to work out. In fact, a good hour of gridlock can be nearly as healthful as a personal-training session at the gym. You can practice deep-breathing exercises. Bring along some hand weights and tilt your power-reclining seat, and you can perform a full bench-press routine. (If you have a sunroof, you can even do squats.) And the cockpit of an automobile is perhaps the only place where one can use a ThighMaster without fear of being seen. (Bonus: In case of a serious accident, a ThighMaster doubles as a highly effective Jaws of Life.)

Finally, try this: Turn off the radio. Unplug the smartphone. Roll up the windows, and click on a little air. Hear that? It's the sound of you thinking—something we 21st-century automatons don't get to hear often enough.

But keep that little treat to yourself. If the DOT ever finds out that we're all using our cars as fancy isolation tanks, pretty soon it'll start charging for gridlock by the hour.

ILLUSTRATION BY TIM MARRS

THE ALL-NEW TACOMA





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NOISE, VIBRATION & HARSHNESS

THIS IS GOING TO HURT, VOLKSWAGEN





FONE CAN CALL A BATTLE WITH

cancer a "personal Vietnam," as writer and critic Susan Sontag once did, then maybe it is fair to term the lyin'cheatin'-pollutin' scandal that Volkswagen brought upon its house its personal nuclear holocaust.

I mean, kaboom: VW's loud proclamation that its new line of turbodiesel engines could be poster children for a magical new era of clean diesel and environmental friendliness—when they were neither—was bad, a page out of George Orwell. But then actually contriving through the use of secret computer code to trick government regulators into thinking for years VW diesels were squeaky clean when they weren't even close, well, that was something special. In the fickle world of 21st-century media outrage, the outlandish scheme quickly outstripped



things like Tom Brady's footballs and Donald Trump's hair as fodder to spin into something truly extra horrible. VW won't find it easy to rebuild its scorched reputation.

With a hundred-plus-year catalog of other automakers' treacheries and miscues preceding it—encompassing the legal shortcomings nonfeasance, misfeasance, and malfeasance in all of their colorful varieties—it is indeed Germany's No.1 automaker's rum luck in 2015 for its dastardly deeds to stand out. They shouldn't really, and yet they do. Volkswagen is remarkable today not just for Olympic-grade brazenness but also for the way it has captured the public's attention, when so little does.

Only recently, General Motors was caught covering up a serious defect in its ignition switches that cost dozens of lives. It paid a piffling \$900 million fine, no one went to jail, and barely anyone talks about it anymore. Not long before, Toyota was penalized for failing to share information with regulators regarding runaway cars. The government fined Toyota \$1.2 billion, and various recalls, civil suits, and consumer settlements will add billions more to the Japanese behemoth's tab. And yet general public sentiment is again a resounding Zzzz.

So that's some bad timing—or perhaps bad karma—for VW, which had only just achieved its long-held dream of becoming the world's largest automaker. It got its wish, one that didn't last long. Welcome to 2015, where the automotive world's Big Three are all now a proven bunch of infracting reprobates.

Meanwhile, back in the realm of absolute truth, Volkswagen's bad acts, while unmistakably evil, are hardly the most horrible ever perpetrated. Even assuming the worst-case scenario—11 million corrupt TDI engines spew unconscionable amounts of asthma- and emphysema-inducing NOx into the environment for years, with certain deaths to result—the sad truth is, much worse has gone on before. In fact, it's going on every day.

Once you get past the power-plant emissions and untested chemicals we're steeped in daily without knowledge or consent, there are trucks, heavy equipment, steamships, jet engines, lawn mowers, and small and stationary engines, tens of millions of them, all smoking away out there, inadequately controlled or controlled not at all. A series of ill-advised regulatory carve-outs have long since been baked into our system on the shaky theory that business (and the military) should not be saddled with environmental control costs.

Still, VW broke the law here and in many other countries, and it's hard to guess what it was thinking, getting its diesels to lie. There must have been a day when the company realized that in its race to the top, it couldn't, wouldn't, or shouldn't comply with the law. No combination of which, to state the obvious, is a good reason for what it did. It is, however, the measure of VW's twisted brilliance and deep engineering bent that it bothered to elaborately game the system rather than just fail to meet the standard straight up, as more practical creeps might have done.

No discussion of Volkswagen is complete without reference to the controlling Piëch family and cold-blooded patriarch In months and years to come, there will be acres of headlines that won't really have to do with VW. The world's regulatory scheme for emissions control, with thrifty reliance on manufacturers' computer simulations and self-certifications, is in the process of being revealed as a noncomplier's dream, with a worrisome tendency to errors that wind up in manufacturers' favor. I have no trouble predicting makers other than VW will be implicated in scandals to come. None may seem so egregious.

For on top of all Volkswagen's moral lapses, its biggest mistake may have been lying to the wrong people. Not just the planet's governments but the people who bought its whole, clean diesel spiel: major torque, seriously good gas mileage, and slightly more expense, with significantly reduced greenhouse emissions and low levels of particulate matter. It sounded so good, I must've sold VW TDIs to 20 friends myself. These were the types of people you'd want as customers, the upscale, the educated, the hip and concerned early adopters and thinking enthusiasts. These are the people who take global warming as seriously as scientists say we ought to. They're exactly who you'd want as satisfied customers for your green car.

Unfortunately for VW, save angry gang members, they're also exactly the type of customer you'd least like to piss off.

They are loud, and their media voice is outsized. Imagine the parking lot at your local NPR station. Plenty of VW turbodiesels, guaranteed. These are the people who'll worry the most about the extra pollutants they were tricked into emitting. These are the people who most want others to think them green. Their minds are exploding today, and too bad for VW they're verbose communicators *and* a pretty litigious bunch. Come to think of it, maybe violating gang members' trust

would've been better.

ON TOP OF ALL VOLKSWAGEN'S MORAL LAPSES, ITS BIGGEST MISTAKE MAY HAVE BEEN LYING TO THE WRONG PEOPLE.

Still, let us not confuse the depth of the antipathy and hurt or the enormous losses facing VW with its death warrant. But it will recover: As Germany's largest employer and automaker, it is, quite simply, too big to fail; if needed, the German government will step in. You can stake your last souvenir pfennig on it.

Volkswagen has weathered worse. The brainchild of Hitler, its creation story offered the company less to boast about than just about any car company ever, and most of us got over that. So the apparent defeat of clean diesel needn't mark VW's devastation. But for now, it looks like its campaign for world domination is on hold.



BY TIM MARRS

DESIGNING WOMEN

THE STORY CONTINUES TODAY



T

HANKS FOR JEFF STORK'S VERY WELL-RESEARCHED

article, "Harley Earl's Designing Women" (November 2015). I joined General Motors from

the Pratt Institute the same year as four of the women. I also worked with Ruth Glennie, who became assistant studio head in Chevrolet interiors. Please consider following up this article with a report of other women currently working in car design. As a former director of transportation design at the Center for Creative Studies in Detroit, several students of mine are making a real contribution to the industry, including Cecile Giroux at Chrysler, Therese Tant at Cadillac, and Liz Wetzel at Buick. The car industry needs more women designers.

CARL L. OLSEN Detroit, Michigan

COVER TO COVER

I've been buying car magazines as long as I can remember. I have never read every word in any of them, as some content just doesn't appeal to me. That was, until I received your October issue. Cover to cover, every page and picture was just, well, bloody good. This issue will not be donated to the local health clinic like all the rest are.

SIMON BIRCH Madison, Wisconsin

For the first time in all my years of subscribing to your magazine, I did not

read November cover to cover. Too much BMW in all the car mags has made me a walking library of knowledge about a line of cars I don't own anymore.

GREGORY OLSON Lynnwood, Washington

BMW NOW AND IN THE FUTURE

Excellent design analysis of the BMW 3.0 Hommage Concept by Robert Cumberford ("By Design," November 2015)! The twin-nostril grille is the least attractive element. BMW should build the car!

KEN WESTBROOK Via Internet I like BMW, both the motorcycles and the cars ("40 Years of BMW," November 2015). However, in its quest for greater sales volume, BMW is abandoning the drivers who enabled the company to flourish. The Ultimate Shopping and Dining Machine? It's beginning to look that way.

BOB SHEEHAN Boulder County, Colorado

I'm glad you've given your BMW sycophants another opportunity to fill almost a full magazine with their incessant backslapping. Some 23 pages and not a single one devoted to the reasons I walked away from a 3 Series on a dealer lot; a sterile driving experience and a lackluster interior.

LES BERRY

Aston, Pennsylvania

CROSSOVER HATERS

An artful rant by Jamie Kitman, this time about crossovers ("Noise, Vibration & Harshness," November 2015). Living in the snowbelt of New England, I've learned that in the worst of it one can see over snowbanks at intersections in a crossover, but not in a Sentra-sized vehicle. As to whether all-wheel drive is really ever used, I would say it is a fair bet I use my AWD system to its potential more often than the drivers of the Dodge Viper ACR use their equipment to its full potential.

JOHN GOREHAM Norfolk, Massachusetts

I run up and down the New York Thruway with antiques and other fragile items. My vehicle of choice is a comfortable, convenient, and cavernous Chrysler minivan. Chevrolet Suburbans pass by with just the driver and no passengers, not even a dog. Or another lonely soul passes in a BMW X6 with every space packed with bags because there's no trunk space. Pickup trucks go past with no cargo in the load bed. I ask: "Why? Why do you need that?"

MARK COOPER Via Internet

TAX HATERS

You will probably get a lot of letters about the gas tax ("The Asphalt Jungle," November 2015). I'd say the main reason that gas tax increases are unpopular is that the tax does not come with an ironclad guarantee that the revenue will go to roads. The city politicos and their constituents always want a big chunk of change for bicycle paths, light rail, bus terminals, etc. Why would ordinary drivers want to pay for that?

CHARLES F. DUNKL Charlottesville, Virginia

Write: Automobile Magazine, 831 S. Douglas St., El Segundo, CA 90245. Email: letters@automobilemag.com. Letters may be edited for clarity and length.



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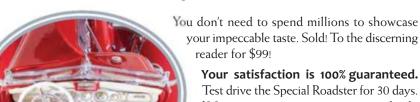
It's hard to deny that one of the signature models of Mercedes-Benz® is the 500 series. So many striking and elegant bodies would grace the stalwart chassis. The 500K's of the 1930s were beautiful, elegant, and exclusive models often outfitted with voluptuous coachwork and sold to the wealthiest of clientele.

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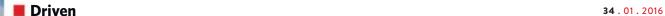


uch has been made of the disastrous reign of Dany Bahar, the former CEO of Lotus Cars who departed under a cloud in June 2012. Since the brand's wildly ambitious multicar reveal at the 2010 Paris auto show, the company nearly went belly-up and, in the process, all but disappeared from the U.S. market (see sidebar).

But a far more bizarre and telling spectacle came pre-Bahar, when journalists tried to climb into the first-generation Lotus Evora back in 2008. We'd begged Lotus for years to build this car-a larger, more usable sports car that could take on the likes of the Porsche Cayman. But unfathomably, it was even trickier to get into and out of than an Elise. Just like that,







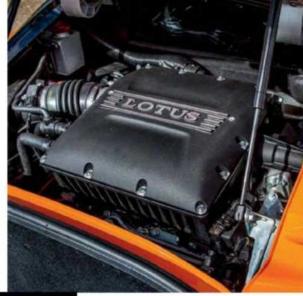


Lotus narrowed its potential customer base to a sliver.

This failure is on my mind as I approach the 2017 Lotus Evora 400, the fruit of a newly stabilized company. Faster, lighter, and more aggressive than ever, the Evora 400 is new in almost every way. But can I get in? Swinging open the door reveals that the formerly huge aluminum sill has been lowered and cut away.

So yes, you can get into it now. But do you want to? All the ingredients are certainly there, starting with its revised aluminum chassis. While the Toyota-sourced, 3.5-liter, supercharged V-6 remains, it has a water-to-air charge cooler and produces 400 hp, ensuring this is the most powerful production Lotus ever. Weight drops 90 pounds from the last Evora to 3,075 pounds (for the manual version), thanks to lighter seats, wheels, engine mounts, and other small changes.

The Evora 400's interior has received a thorough and thoughtful redesign, featuring a refreshed look, improved materials, and a greater sense of cohesion overall. It still feels low-rent in spots, though, especially when you interact with the stereo.



The interior is much improved but still miles behind the Cayman. The engine delivers strong performance, but the manual balks if hurried.

Best to ignore the radio altogether then and hit the Start button. Wow, the noise is so much more exciting than in the previous Evora S. Not exactly the creamy smooth soundtrack of a Porsche flat-six or the elemental drama of a big V-8, but it's nevertheless encouraging (and yes, it sounds a helluva lot better than your Camry).

One of the few dynamic shortcomings of the old Evora was the sloppiness of its six-speed manual. The Evora 400's gearbox feels smoother and more precise; the loose, fragile action is gone. While the sublime shifting of the



Cayman (that car again) is still a class apart, the 400's updated six-speed is no longer a literal or metaphorical hang-up. So go for the manual, even though Lotus says it has improved the optional torque-converter six-speed automatic as well. As a bonus for shifting your own gears, you get a limited-slip differential, which isn't offered with the automatic.

No one ever complained about how the Evora handled. Nevertheless, the Bilstein dampers have been recalibrated, the rear springs are stiffer, and the staggered wheels now wear sticky Michelin Super Sport tires (19 inches in front,

Automobile:

What's next for Lotus in the U.S.?

Jean-Marc Gales: From January 2016 onwards we will be selling the 2017 model year Evora 400. The U.S. version needs specific finalization. It requires smart airbags, and it requires side airbags, which are mounted in the seat.

AM: With that new model, is there going to be a new push in the U.S. for Lotus?

JMG: Yes, we have been waiting for this launch for vears. The U.S. dealers [expected to number 52 by the end of this year] are crazy about the new car. I have been in Detroit, and I have rarely seen such enthusiasm for a new car. So for the Evora 400 we want to sell, getting toward 400 cars would make the U.S. our biggest market again. With the [Evora] Roadster as well. we are targeting something like 700 cars for the full year of 2017

The Roadster is easily done because we have a tough chassis and a composite body, and we already have the rollover bar incorporated, so taking the roof off is relatively easy. What we have in mind are two carbon-fiber roofs below 7 pounds each, which you can easily take off and store behind the rear seats. It's basically a targa. I drove a prototype last month, and it's amazing.

AM: Can American buyers expect more than just a choice of two versions of the Evora in the future?

JMG: We are working on the new Elise for 2020. It will go to the U.S., and we are currently working on pulling that date forward. I can't tell you by how much, but I want to be going into 2020 in the U.S. with an Elise-type car. We haven't defined exactly what it should look like and what



IN WITH THE NEW LOTUS CEO

When Jean-Marc Gales became boss of the serially troubled Lotus Cars in May 2014, he imposed a near-total news blackout. It was pretty much the opposite strategy employed by his predecessor, Dany Bahar, who famously revealed six prototypes in one go at the 2010 Paris auto show, promised grand expansion plans, and harnessed an unlikely array of celebrities to promote the tiny company before flaming out in June 2012.

The Bahar era is history now, and so are all the prototypes, and for a while it seemed like a Lotus presence in the U.S. might go that way too. But for Gales that was never the plan. Besides attempting to make Lotus profitable—a mission that has eluded almost all his predecessors—Gales has unveiled the Evora 400, revealed that Lotus has every intention of staying in the U.S., and most dramatically of all, announced plans for a joint venture that will see a Lotus SUV produced in China. The Luxembourg native who counts several Lotus brochures among his childhood treasures previously worked for PSA Peugeot Citroën, Mercedes-Benz, and Volkswagen.

the specifications are, but expect Elise-type performance. But I would love to stick to what we are good at, and that is an aluminum extruded, bonded chassis and composite/carbon bodies.

AM: In a broad sense, you can see why Lotus might want to sell an SUV in China. But how can an SUV be a Lotus? JMG: There is no lightweight SUV on the market. They are big and

derived from sedans. But if

you design it from scratch and consider every single part ... I could use Evora seats, for example, and immediately save 44 pounds per seat because the current seats in an SUV are horribly heavy. When we take it to the market in 2020, we will use the help of our Chinese partner [Goldstar Heavy Industrial] to do a joint venture. We will export it, but first it will be for China. It's going to be the best it can be-a Lotus SUV, a car that doesn't currently exist.

■ Driven 2017 LOTUS EVORA 400





The Evora has sublime damping and control on even the worst surfaces. On the track, a new limited-slip differential helps provide quite exquisite balance.



20 inches in back). Over craggy roads surrounding the factory, the Evora 400 delivers the supple poise that has come to define Lotus, but it feels more intense than the old car. It doesn't quite breathe with the surface as freely as the old Evora S, but you get a greater sense of connection and the feeling that those new tires are really clawing into the road. Even on a streaming wet day, they hang on tight.

On the track the Evora 400 is predictable, even with stability control disabled. It's fast, too, biting hard starting around 3,500 rpm and chomping to the limiter at 7,000 rpm. Through the infamous Windsock corner at the Hethel test track, the 400 feels very stable,

THE SPECS

ON SALE:

January

BASE PRICE:

\$91,375

ENGINE:

3.5L supercharged DOHC 24-valve V-6/400 hp @ 7,000 rpm, 302 lb-ft @ 3,500-6,500 rpm

TRANSMISSIONS:

6-speed manual, 6-speed automatic

LAYOUT:

2-door, 2-passenger, mid-engine, RWD coupe

EPA MILEAGE: N/A L x W x H:

172.6 x 72.6 x 48.4 in

WHEELBASE: 101.4 in WEIGHT: 3,075-3,142 lb 0-60 MPH: 4.1 sec TOP SPEED: 186 mph perhaps an indication of the new bodywork's enhanced aerodynamics. The gearbox presents a few niggling problems, balking at times when you try to rush through a second to third shift, and the new, bigger brakes are strong but not tireless. Overall, though, there's plenty to enjoy and fewer frustrations.

The steering, meanwhile, provides a stunning reminder of what "steering feel" means. The rack itself is mounted lower than before in an effort to reduce bump steer, and although there's still hydraulic assistance, the new geometry lends a bit more weight to the wheel. That weight does nothing to mask the raw, detailed feedback that floods through the

rim, which renders a perfect image of the road and faithfully tells you how much grip the front tires have in reserve. It is incredible, and it draws you into the driving experience from the moment the wheels begin to turn.

It's this clear line of communication, along with its updated cabin, that makes the Lotus Evora 400 worthy of consideration, even though it costs more than the Cayman GT4 and the Chevrolet Corvette. For those who prize purity of feedback and a delicate balance and are attracted by the British brand's unique history, the 2017 Lotus 400 holds a deep allure. Lotus is back on the road, and we're happy to be able to climb on board.



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et's get one thing
clear: The 2016
Honda Civic sedan
is a better car than
the one it
replaces—
significantly
better. It's better to look at, better

better. It's better to look at, better to drive, better to ride in with passengers, and it's stuffed to the roof with forward-thinking features. From what we've experienced of it thus far, we're convinced this Civic has potential for greatness.



O LOS ANGELES, CALIFORNIA

The interior is a huge step forward, with a lower, sportier driving position and a streamlined information display.

EPIC START

Honda's all-new compact aims to be great once again

In case you didn't know, Honda consistently sells more than 300,000 Civics a year, so the launch of the 2016 Civic is a huge deal. Honda was stung by the criticism its last-generation compact initially received for being cheap and bland, so if Team Civic had one objective with the new car, it was to get its mojo back. Every generation Civic has had an internal code name its engineers use to define the car. The "Super Civic." The "Wonder Civic." The "Grand Civic." And so on. This one? "Epic Civic."



Action from the manual shifter is very light, but it's precise. Pity it's only available with the base engine.

Dimensionally, the 2016 Civic has grown nearly 3 inches longer and 2 inches wider overall, while its wheelbase has been stretched 1.2 inches as well. This means interior dimensions are up over the outgoing car, and Honda even claims best-in-class interior volume. Rear seat passengers will find themselves much more comfortable, with a noticeable amount of extra knee room and headroom. A lower and shorter hood allows also the front seats to be mounted lower in the car, delivering a sportier driving position.

The Epic Civic's redesigned cabin also addresses a major pet peeve we've had with the previous-generation car. The dual-tier central information display is finally gone, replaced by a single, conventionally mounted 7-inch screen (in models so equipped), and even better, now there's a conventional instrument cluster directly ahead of the driver. This makes finding information much simpler, and it ups the cabin's aesthetic quotient. Meanwhile, tech junkies will be thrilled that EX models and above



Driven

will be compatible with Apple CarPlay and Android Auto. The Honda Sensing safety suite is also available, with features including adaptive cruise control, forward collision warning, lane departure warning, and lane keeping assist. With these technologies plus a unique front crash structure designed to push the engine downward in the event of a collision, Honda is expecting top marks for this car in both NHTSA and IIHS crash testing.

Under the hood of the 2016 Civic are two new four-cylinder engines. The base 2.0-liter engine, available on the lower LX and EX trim levels, has 15 more horses than the outgoing 1.8-liter I-4. But the big news in the powertrain department is the premium engine for EX-T, EX-L, and Touring versions: a turbocharged 1.5-liter I-4 with 174 horsepower, a 31-hp increase. While you'll be able to spec a six-speed manual transmission on 2.0-liter Civics, the only option available for the



combined with a torque converter. A similar, light-duty CVT/torque converter option is also available The torque converter pairing,

only is the new car more composed over uneven sections of road, but the ride is more compliant too. Honda claims a 25 percent gain in torsional rigidity for the unibody structure thanks in part to the increased use of high-strength steel. Indeed, the Civic feels taut and cohesive through the twistier sections of Mulholland Drive. The steering is a notable improvement as well, with a new electrically assisted rack that feels more direct and responsive than did the setup for the previous Civic. We also appreciate the firmer brake pedal

with a better modulation that



Honda's new engine range includes a trick 1.5-liter turbo, but it's hampered by an uninspiring CVT. Rear passengers will be significantly happier than in the previous Civic.

POWER FROM THE 2.0-LITER IS ADEQUATE FOR THE CLASS, BUT THERE ISN'T A TREMENDOUS DIFFERENCE IN GRUNT

with the 2.0-liter engine.

Honda says, allows both engines to

get into the powerband quicker

conventional automatic, which is especially important with the

On the snaking canyon roads

above Malibu, California, the new

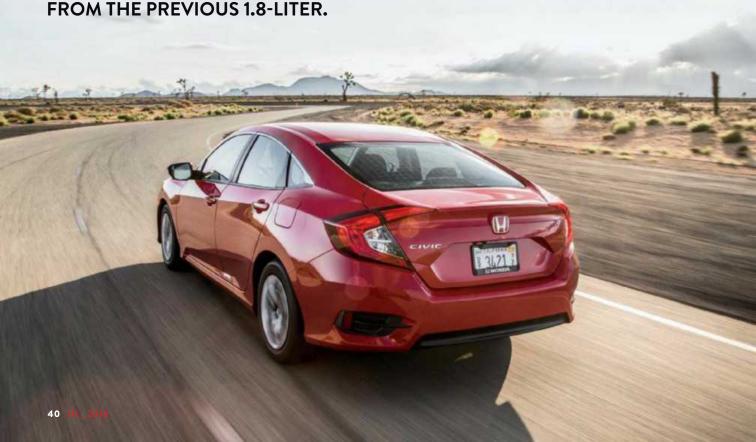
Civic shows itself to be a clear step

forward over its predecessor in

terms of chassis refinement. Not

while simulating the feel of a

smaller turbocharged engine.



2016 HONDA CIVIC SEDAN



ultimately builds driver confidence. All this, combined with the lower seating position and more commanding view, lends the Civic a much sportier feel than before.

We were less impressed with the powertrain combinations. An LX model with the base 2.0-liter engine and a manual transmission proves engaging enough, although both the clutch and shift action are exceptionally light. Power from the 2.0-liter is adequate for the class, but there isn't a tremendous difference in grunt from the previous 1.8-liter.

As for the torque-converter CVT combo attached to the 1.5-liter turbo, we didn't notice a major improvement in refinement. By and large, the transmission behaves as we've come to expect from a traditional CVT. Go hard on the gas, and the revs zing into the meat of the engine's torque curve, plateauing into a stagnant drone. Lift off the throttle for just a second, and the revs drop back to near idle speed until you get on it

THE SPECS

ON SALE:

Now

BASE PRICE:

\$19,475-\$27,335

ENGINES:

2.0L DOHC 16-valve I-4/158 hp @ 6,500 rpm, 138 lb-ft @ 4,200 rpm; 1.5L turbocharged DOHC 16-valve I-4/174 hp @ 6,000 rpm, 162 lb-ft @ 1,700-5,500 rpm

TRANSMISSIONS: 6-speed manual, CVT

LAYOUT:

4-door, 5-passenger, front-engine, FWD sedan

EPA MILEAGE: 27-31/40-42 mpg

(city/hwy)

LxWxH:

182.3 x 70.8 x 55.7 in

WHEELBASE:

106.3 in **WEIGHT**:

2,742-2,923 lb

0-60 MPH:

TOP SPEED:

N/A

again, and the process repeats itself. While this might be more than fine for an economy car (which is this 2016 Civic's primary role after all), it wasn't exactly well suited for hustling along the fantastic roads of our drive route. And given its power advantage, we expected the turbo to feel faster from the driver's seat.

Being lovers of driving fun that we are, we'll be waiting patiently for the inevitable sportier versions of the 2016 Civic. The forthcoming Civic Si will likely pair even crisper handling with an uprated version of the turbo engine, and the manual gearbox will be complemented by a CVT/torque converter setup with shift paddles. Then there's the coming Civic Type R (a version of which we previewed in our October 2015 issue), which is the one we're really waiting for, since it promises way more power and razor-sharp dynamics. But until then, we'll content ourselves with what looks to be the start of something great for Honda.



MADRID, SPAIN

W

e were stopped at a red light when a woman on a Harley-Davidson pulled up next to us. "Why are the handlebars

vibrating like that?" my wife asked. "The whole bike is vibrating. Is it old? Broken? Or what?"

No, I explained. The idea is that a Harley is slightly untamed, wild—a badass beast you must control. Which brings us to a conversation I imagine must have happened in Japan, probably at Yamaha circa 1979, when the marketers brought in a Harley to

show designers and engineers. I imagine them looking at the V-twin engine and frowning; there are more efficient designs. Once the Harley shuddered to life and started vibrating, I imagine them saying, "We can fix that!" Followed by some marketing guy trying to explain that, no, the vibration and rough idle are selling points. I picture them nodding and smiling politely while thinking, "What the hell?"

Sometimes it seems Japan still doesn't quite get American enthusiasts. Case in point: Although other manufacturers use systems similar to Lexus' Active Sound Control, Lexus seems to



have really embraced the idea of using audio speakers to pipe electronically enhanced noise into the cockpit. In the 2016 Lexus GS F, a delightful if slightly sterile car, the electronic exhaust note at full song enhances that feeling of sterility more than invigorating the driving experience.

In one of the two Sport modes, ASC uses dedicated speakers mounted in the front and rear. The front speaker "emphasizes the high tone of the air intake," and the rear speaker "delivers a strong low-frequency sound,

TECHNOPOP

The GS F raises Lexus' sport sedan game with a bevy of gadgets



THE SPECS

ON SALE:

Now

BASE PRICE:

\$85,380

ENGINE: 5.0-liter DOHC 32-valve V-8/467 hp @ 7,100 rpm, 389 lb-ft @ 4,800-5,600 rpm

TRANSMISSION:

8-speed automatic

LAYOUT:

4-door, 5-passenger, front-engine, RWD sedan

EPA MILEAGE:

16/24 mpg (city/hwy) (est)

LxWxH:

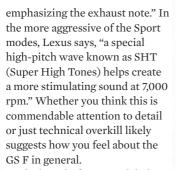
193.5 x 72.6 x 56.7 in

WHEELBASE: 112.2 in WEIGHT: 4 034 lb

0-60 MPH: 4.5 sec

TOP SPEED: 168 mph

We have no complaint with the instruments or controls, as Lexus figured that stuff out with the 1990 LS 400. As expected, every mode has its own dashboard configuration.



The brand's first F model, the IS F, debuted in 2008 with a 5.0-liter, 416-horsepower V-8 and a then-remarkable eight-speed automatic transmission. The GS F is a bigger five-passenger sedan, powered by a ... 5.0-liter, 467-horsepower V-8. The IS F was aimed squarely at BMW's M3, and on paper at least, it hit the mark. But many of us lamented the fact it lacked the BMW's feel. Now, three F models later—following the LFA and RC F—Lexus has closed the gap.

The GS F shines in town and on open country roads. While 467 hp might not be the most in the executive-class performance sedan market, it's a naturally aspirated engine and well matched to the perceptive, quick eight-speed automatic. At 4,034 pounds, the GS F isn't a lightweight, but it's surprisingly light on its feet.

Much of that has to do with its tuned suspension, double wishbones up front and multilink in the rear, riding on 19-inch Michelin Pilot Super Sport tires on forged aluminum BBS wheels. Brembo brakes are exceptional and linear, never fading after repeated heavy use at the end of the Jarama road course's longest straight. Lexus claims a 0-60-mph time of 4.5 seconds, identical to our own stopwatch tests. The quarter mile passes in 12.8 seconds, and top speed is electronically limited to 168 mph.

Trunk space, at 14 cubic feet, is plenty adequate, but the opening is a little small. Inside, the front buckets are supportive in every area. In the back, seating is very comfortable for a pair of 6-footers,



and there's enough room for a fifth passenger to not feel claustrophobic.

The GS F is more at home on the track than any Lexus sedan has ever been. The engine pulls hard right up to the 7,300-rpm redline, which you visit often because maximum horsepower comes at 7,100 rpm. The 5.0-liter's directinjection enables a high 12.3:1 compression ratio, and exhaust backpressure has decreased since we first saw this powerplant. In more conservative driving, it shifts seamlessly between its Otto and more economical Atkinson cycles.

Various driving modes reduce or increase powertrain performance and adjust the feel of the already-communicative electric power steering. There's also a three-mode torque-vectoring differential and finally Vehicle Dynamic Integrated Management, which convenes

ABS, traction control, and stability control. Choosing the Sport setting puts the nannies to work for you. Choosing Expert turns off traction control, but unless your name is Lewis Fernando Vettel, Sport makes for better lap times.

There's no question the GS F's technology might raise fears of a complete absence of I'm-in-control-not-the-computer feel, but this is the closest Lexus has come to building a Japanese BMW, and that's a compliment. The car will list for \$85,380. Lexus hasn't priced the Mark Levinson sound system or painted calipers—the only options offered—but we guess about \$3,000 for the sound, half that for the colored calipers.

And as for the synthesized exhaust note: Sure, it's cool, but we'd rather just roll down the windows and listen to the real thing.





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Driven

f you hear someone call the 2017 Audi A4 boring,

smack him in the back of the head. That clown doesn't know what he's talking about.

Strap yourself into the A4, and you'll find the crisp new Virtual Cockpit making up the instrument cluster and a large and equally beautiful display atop the center stack. Why do you need two nav screens? That's like asking why your phone needs a screen at all. It didn't, until it had one, and then you couldn't live without it.

What makes the A4 special this



time around is the fun you'll have behind the wheel. This is the best A4 in that department by far. Even under heavy provocation, you're not going to find any understeer even though the whole engine block is still hung out over the front axle. The redesigned strut-type suspension adds another link to separate steering and vertical forces. The setup provides a great balance between comfort and handling, especially when paired with the optional adaptive damping system.

The 2017 A4 that'll likely be most popular with American buyers is the 2.0 TFSI with Quattro all-wheel drive, so we focused on that model during our drive time. It's downright snappy thanks to its 252 hp and standard seven-speed, dual-clutch automatic transmission. The European-spec car will hit 60 mph in about 5.6 seconds, according to Audi. U.S. cars might be even more agile thanks in part to a unique

A BORE NO MORE

The best-driving A4 yet, with more tech and less weight



2017 AUDI A4 | BY NELSON IRESON

transmission tune. Expect a 2.0-liter TDI with Quattro at launch as well. (Given recent events, we're guessing it will be tested within an inch of its life before it hits the road.) Frontwheel-drive models will follow soon after. Sadly, no manual transmission is in the works.

Part of the new A4's graceful driving character comes from its decreased weight. American cars will be between 75 and 100 pounds lighter than the previous A4, depending on trim. Some of the biggest savings come from the brake system, where fixed aluminum calipers replace floating iron units for an 11-pound savings. The new A4's forged aluminum suspension and the electromechanical steering rack shave a total of 35 pounds. Audi engineers found another 30 pounds or so by obsessing over small stuff throughout the car. The steering wheel rim, for instance, is now magnesium.



The A4 long boasted the best-looking interior in its class. Now it has the best-working interior as well, with crisp color screens and an intuitive user interface.

The diet plan comes despite more equipment than ever on the A4, as Audi hasn't forgotten that technology is what sets it apart in this crowded segment. The optional Virtual Cockpit acts like your typical luxury sedan's center console display: a brilliantly crisp (1440 x 540 pixel) and fast (60 frames per second) unit. The difference is that it is right in front of you and can be controlled from the steering wheel. The screen lets you access an impressive array of features, including Audi's latest and greatest MMI interface, new apps, and detailed Google Earth maps, without reaching for and glancing at the center console.

The large, responsive center display (7-inch standard, 8.3-inch when equipped with navigation) added to Virtual Cockpit nets you nearly as much screen real estate as the new Mercedes-Benz S-Class,

with even smarter features.

On top of all that, there's an optional head-up display. It also has crisp graphics, smart alerts, and all the information you'd want in front of your eyes. In practice, it's basically redundant given the Virtual Cockpit screen just below it.

The center console's touchsensitive controller allows for quick, intuitive, and scroll-free text inputs via its capacitive-touch upper surface. When scrolling does become necessary, it now scrolls the right way. Yes, that's right, Audi has finally yielded to logic and stopped with the up-is-down nonsense.

The center screen won't be completely redundant, either, as the passenger (or greedy driver) can use it to access not just the full suite of items available in the Virtual Cockpit but Apple CarPlay and Android Auto as well. Audi is









also planning an expanded form of Audi Connect that will include emergency roadside service, smartphone lock/unlock and status reporting, and smartwatch app functions.

Driving the Audi A4 through the Italian countryside near Venice, we discovered for ourselves how this display can aid rather than distract from driving. We're able to keep a map of the overall route on the center screen while scanning a zoomed-in map on our instrument cluster to find curvier, less trafficked roads. No more trying to futz around with a single display, cursing at your harried passenger's incompetence as you speed through unfamiliar territory.

When we do hit congestion, traffic jam assist keeps the pixel-fueled party going with the ability to follow the lane and control the vehicle speed from a stop up to 40 mph. The lane-recognition system works as well as most others we've tested, which







Lots of cars have color screens in their instrument panel these days. But Audi's Virtual Cockpit is quicker, sharper, and bigger than most, which makes it more useful.

THE SPECS

ON SALE: Spring 2016

BASE PRICE:

\$40,000 (est)

ENGINE:

2.0L turbocharged DOHC 16-valve I-4/252 hp @ 5,000-6,000 rpm, 273 lb-ft @ 1.600-4.500 rpm

TRANSMISSION:

7-speed dual-clutch

automatic

LAYOUT:

4-door, 5-passenger,

front-engine, AWD sedan

L x W x H: 186.1 x 72.5 x 56.2 in

WHEELBASE: 111.0 in WEIGHT:

WEIGHT: 3.329 lb

0-60 MPH:

5.6 seconds (est) **TOP SPEED:**

155 mph

is to say it had some difficulty. (Mercedes retains the edge here.) The adaptive cruise control works flawlessly though. When the systems are working in concert, they take the bulk of the load off the driver in heavy-traffic situations. It's worth at least 10 points off your blood pressure reading. You can even take your hands off the wheel for a handful of seconds.

You'll save another 10 systolic points—and possibly a life—with the exit warning system, which leverages the A4's blind-spot detection sensors to scan for traffic approaching from the rear when you exit the car. If the car detects a threat, it will alert the driver or passenger by flashing lights in the door. The system activates once the A4 is stopped, and it remains active for up to three minutes after the car is turned off. It's a simple and obvious application of existing

sensors and data, but its impact is potentially enormous. Brilliant.

In the U.S., much of the equipment mentioned above will be standard, in addition to a 4G LTE data connection and a rearview camera. Must-have features such as the Virtual Cockpit and navigation will be "priced to be easily accessible" to most buyers. Of course, buyers will have opportunities to lay down extra cash, such as for a 755-watt, 19-speaker Bang & Olufsen 3D sound system.

Audi hasn't yet released U.S. pricing, but expect that information—plus U.S. trims, features, and other details—closer to the car's launch next spring.

No matter the final spec sheets, however, with all that's offered the Audi A4 makes a truly compelling case for your luxury sedan dollar. Is it smart? Sure. Fun? Without question. Boring? Never.



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Design Analysis: 1. Seen with the finned "cans" behind the lenses, the taillights look like something out of a 1930s Flash Gordon comic. 2. The "mustache" form in the rear is quite a bit more refined looking than the front one and integrates well into what is a very complex rear fascia. 50 . AUTOMOBILEMAG.COM . 01 . 2016

By Robert Cumberford | Photography by Andrew Trahan

Design of the Year



A MONUMENT OF STYLE,
INSIDE AND OUT

he latest installment of Automobile's Design of the Year was almost too easy for us to pick. The Ford GT was the most exciting, most innovative, and most surprising meant-forproduction car to make an appearance in 2015, period. No matter how you consider it-as a front-line competition car or a fabulous high-performance coupe-Ford's decision to return to serious international sports-car racing 50 years after GT40s first showed up at Le Mans was the biggest performance-car news of the year. The fact Ford sprung the new GT on the world without the series of concepts and multivear promises of "real soon now"-as heralded the Camaro's return to market a while back—is all to the credit of the Blue Oval's upper management, whose silocentric methods were changed radically by former CEO Alan Mulally and carried on by present incumbents.

You do not often see a whole new way of shaping a specific category of automobiles. Most new designs are evolutions or derivations of what came before, with little variations in details, maybe as simple as integrating separate trunks into the body form, as was done in the early 1930s, or adding fins to enveloping shapes, as was done to the point of absurdity in the '50s. In grand touring cars, we've seen gorgeous roadcapable racers like the Ferrari GTO and the Ford GT40 evolve into very exotic supercars like Koenigseggs and Paganis, all still very much in the same mold. Racing "sports cars," like the incredibly efficient (but also insuperably ugly) Prototype racers that now fight for overall victory at Le Mans, have absolutely no visual linkage to anything any of us would want to be seen driving on the road. That's not true for the new Ford GT.

Many of us have seen some shots on the Web wherein the GT is flanked by the very pretty McLaren 650S, one of McLaren design director Frank Stephenson's best efforts to date, and the beautiful Ferrari 458 Speciale. All three are greatlooking machines. Yet the Ford, which is longer, wider, and taller than its ancestor-from which it is clearly influenced with multiple points of recognition artfully incorporated-also looks fresh. And surprisingly, it manages to look smaller than both the halfcentury-old GT40, with its tiny, typically British racing 95-inch wheelbase, and Camilo Pardo's brilliant GT follow-up of a decade ago, with 11.7 inches more wheelbase and nearly 4 inches more height.

Chris Svensson, British-born design leader for the new GT (and all North American Ford products), attributes the impression of it being much smaller to the body's very narrow central portion, which includes the nearly vertical exterior cabin walls. Amko Leenarts, Ford's global director of interior design, insists the cockpit is certainly cozy but also generous enough in width for two people to be truly comfortable in the car. The two top designers are genuinely our kind of people. Svensson has been with Ford for 22 years, having launched his career with the Blue Oval in Cologne in 1992. One of his first big projects was the Ka, a minicar highly polarizing in its style. We ran a Four Seasons test of the Ka soon after it appeared, in anticipation of it coming to the U.S. I liked it very much, to the point of buying the test car and running it happily for a few years. Others hated the look.

Svensson has moved around the Ford world, spending three years in Australia during one stretch. He drives our kinds of cars, too, with a Shelby GT350R

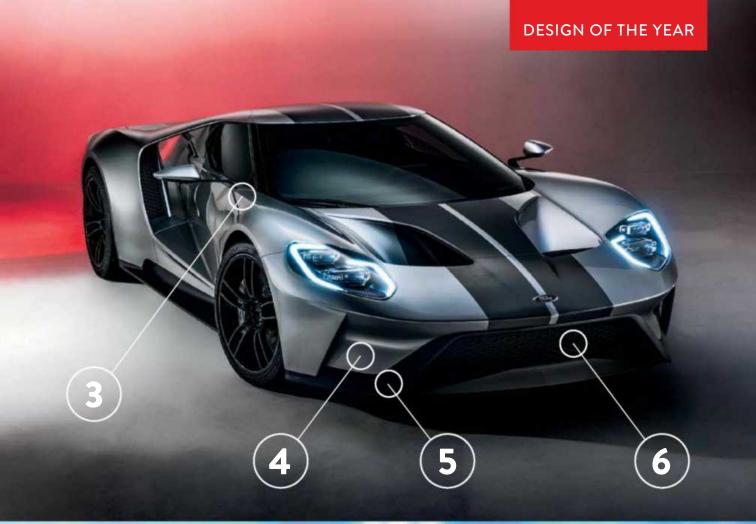
- **3.** The inside surface of the front fenders flows into a horizontal shelf on which the mirrors mount. The hard line continues into the tunnel where it fades to nothing.
- 4. This apparently hanging panel recalls the original BMW i8 concept car ... and some Formula 1 cars as well. It directs cooling air toward the front wheels and brakes and rests on the black under-nose extension as it wraps around the sides.
- **5.** In June, I said, "This black band is the least attractive aspect of the overall design ... a little thick and less refined than the rest of the car." I still think so.
- **6.** The grille texture is coarse, and the whole opening seems very big. But who knows? It could be necessary to provide sufficient cooling to the turbocharged engine.

THE MAIN RADIATOR IN FRONT TAKES AIR IN LOW AND **EXPELS THE HEATED AIR** FROM THE **CORE ON TOP** OF THE HOOD, WHERE IT IS DIRECTED **OUTWARD SO** IT "WASHES" THE SIDES AND ADDS

HEAT ENERGY
TO THE AIR
FLOWING
AROUND (AND
THROUGH)
THE CAR.

In direct rear view, it is apparent that more than half the cross-sectional area is devoted to extracting air and heat from within the form. Including exhaust outlets, there are 10 separate outlets apart from the diagonal air tunnels.

The empty spaces, the negative areas of the tunnels, which are largely open-top trenches, lend a dramatic aspect to what is a cohesive single form visually—a selection of disparate shapes tied together by blades.





on order and a '65 Mustang fastback in his garage along with a Huffaker Genie mid-engine sports car, the only coupe version ever made. It's in restoration, with a Ford 289 V-8 for power. He sold his '57 Porsche 356 much to the distress of his wife, who liked driving it and wants another.

Asked about how things went in the "secret studio" in the design center's basement where the GT was created. Svensson says he likes to tour all the studios beginning at 6:30 a.m. to get an idea of what's happening in his realm. During the GT project he snuck down there as much as he could; he says people went in and out as needed, but about a dozen full-timers were involved. "It was hot, it flooded, it was pretty miserable at times, but people liked it. It was exciting, and they really didn't want to leave when the GT was done. They hoped for another project as exciting," says Svensson.

There is no way around the fact this is a radical design, with what amounts to two square-cornered tunnels punched through the car's sides on a diagonal, their theoretical forms converging behind the physical portion of the car. Its artful styling lies in finessing the details, radii of disparate elements, and the three principal profile lines: the centerline section and the fender profiles. In fact, the front fender profile diverges on the tunnel diagonal, so it is continuous in side view but doesn't really have anything to do with the rear fender, except both fenders have harmonious rises over their respective wheels.

We don't often get to see a true plan view of a car, which is too bad because it is highly instructive. In the accompanying photograph we can see the widest part of the cabin is at the base of the A-pillars, and







Intriguing as the exterior design is, the interior fascinates us even more. The car's base structure is a monolithic carbon-fiber-reinforced plastic molding incorporating the seats and the cross-pillar transverse member as structure. Apart from the adjustable pedal box and steering column, everything in the cockpit is fixed firmly to the structure. The digital read-out instrument cluster in front of the driver on the left (we don't know yet if there will be RHD versions) contains all driving information, while the screen on the right is housed in a non-structural section containing ducting, wiring, and the passenger airbag. That touchscreen is related to the infotainment system and will respond to gloved hands, unlike some fussier screens in home-use devices.

Leenarts chose to make the second-level housing a different color than the mostly black cockpit and to carry the light color across to the seat backrest cushions but not the headrests. The only other touch of color is rather subtle: The inner portion of the air-conditioning outlets is beryllium-colored, though obviously not made from the actual metal, which is incredibly toxic. Those outlets, two to a side, are affixed to the doors, which pivot up and out when open, so ingress is enhanced but not necessarily easy.

When the doors open they carry away much of the lower bodywork, but that doesn't mean you just slide your feet in to the floor. There is still the sill to surmount, and the seats are lower than it is. Getting in is an exercise, because unlike previous Ford GTs, there is no cutout in the roof. In the 2005-'06 car, you really needed three parking places to be able to fully open both doors. That goes away with this car in the interest of better structure and practicality, but ease of entry and egress was clearly not a major part of the program.

What was part of the program was making the car look like a Ford—headlamp clusters, hood outlets, and round taillights do that very well-and be worthy of what is now a long and honorable racing tradition that began with Henry Ford himself and flowered with Henry Ford II. The choice of a turbocharged V-6 with a reported 600 hp instead of a traditional V-8, and carbon fiber instead of steel or aluminum, came to the stylist-designers from engineering. We think this GT is basically Ford's head of global product development Raj Nair's car, conforming to a vision he sold to management and that the mechanical engineering and styling teams were able to execute.

They did so incredibly well, ultimately producing Automobile's Design of the Year.

15. The beryllium color inside the A/C duct throats is repeated on the righthand infotainment and airbag panel. Swinging up out of the way on the doors is a great idea.

16. The tachometer is a horizontal bar code, running from the blue light at idle to the red one at 7,000 rpm.

17. The triple zero on the right is the digital speedometer, which might very well be shut off in Track mode.

18. The touchscreen panel responds to gloved hands.

19. The light-colored nonstructural cover shields ducting and wiring. A cross-car structural beam sits at the front.

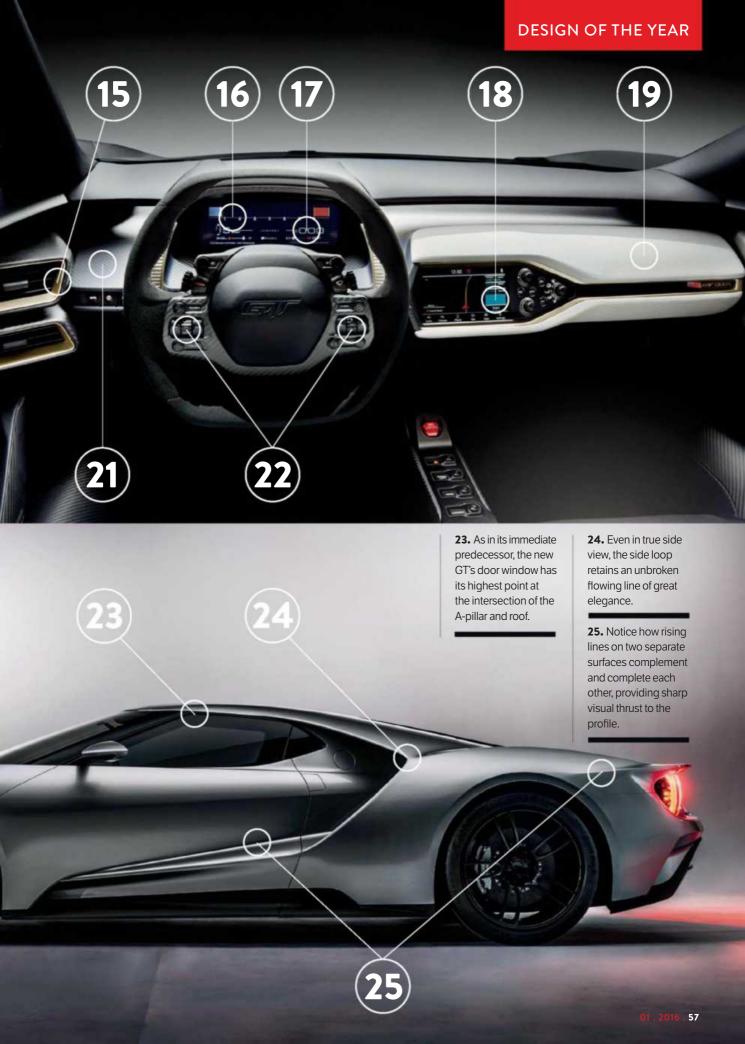
20. Hole-filled gear-

should always find the paddle and shift without searching or thinking about it.

21. This is the only visible part of the structural transverse beam. The glare shield above is an add-on piece.

22. It might not be as full of knobs, buttons, and warning lamps as an F1 steering wheel, but there's a lot of information available, and there's no need to





THE SAFETY STORY OF THE ALL-NEW

2016 CHEVROLET MALIBU

AS TOLD BY THE PEOPLE WHO ENGINEERED IT.

We sat down with active safety expert Raymond Kiefer and engineering safety specialist MaryAnn Beebe to talk about the innovation that went into creating the available active safety technologies in the all-new 2016 Malibu.











RAYMOND KIEFER STAFF TECHNICAL FELLOW, GM ACTIVE SAFETY

What are some of the advanced active safety features engineered into the all-new 2016 Malibu?

Malibu offers a sophisticated range of radar, camera and ultrasonic crash-avoidance technologies to help drivers avoid crashes in everyday driving situations. In fact, we've engineered a number of available safety features, including Low Speed Front Automatic Braking, Lane Keep Assist with Lane Departure Warning and Rear Cross Traffic Alert, aimed at increasing driver awareness. Before you make a lane change, the available Side Blind Zone Alert with Lane Change Alert feature lights up a side mirror icon if a vehicle is rapidly approaching or in your blind spot. Available Front Pedestrian Braking marks Chevrolet's first foray into helping drivers avoid pedestrians. An amber icon appears if a pedestrian is detected ahead and, if you're seconds away from a crash, red LED alerts flash on the windshield along with rapid beeping. If braking is delayed or if a pedestrian suddenly

appears, the brakes are automatically applied. This may not prevent the crash, but reducing crash impact speeds can make a real difference.

What's the difference between radar and camera technologies in active safety features?

Both technologies do an outstanding job of helping drivers increase awareness of what's going on around them. Radar is an active safety technology that improves vehicle detection range and works better in inclement weather conditions that may be a challenge for cameras. Camera technology works more like the way we see and avoid objects every day by using visual looming cues about the way objects grow in size as we approach. This technology is used in the available Low Speed Front Automatic Braking and available Front Pedestrian Braking features. Cameras can also show you hazards that you can't see directly with your eyes or mirrors.

Teen Driver is a tool for parents to continue to teach safe driving habits to their young drivers.

MaryAnn Beebe
gm engineering specialist, teen driver



MARYANN BEEBE GM ENGINEERING SPECIALIST, TEEN DRIVER

What is the Teen Driver¹ technology and how does it work?

Teen Driver is a tool for parents to continue to teach safe driving habits to their young drivers. It is a new feature that lets parents manage certain vehicle settings to encourage safer driving by their teenagers. Parents can set a volume limit for the radio and set a speed warning that will deliver an audible and visual warning when the vehicle exceeds the preset speed. When Teen Driver is active, the radio is muted if the driver or front passenger is not wearing a safety belt, and all equipped active safety systems are defaulted to "on." Our goal was to use technology to help teens develop safe habits and, ultimately, be safer on the road.

How does the in-vehicle report feature work with other active safety features?

The Teen Driver in-vehicle report feature provides a snapshot of a teen's driving behavior. A parent can enter their Teen Driver PIN, and the report shows distance driven, number of over-speed warnings, if certain active safety features were engaged and how many times they were engaged. For example, if the vehicle is equipped with available Forward Collision Alert or available Front Automatic Braking, the in-vehicle report will show how often these safety features were triggered. The in-vehicle report empowers teen drivers to show they've been driving responsibly, or see what driving skills they need to work on, and parents can continue to coach their new drivers. As a mom myself, it's rewarding to know that we're helping make a tangible difference. We want to set the industry standard for safety.





LAND ROVER DEFENDER 90

WITH A 250-MILE SLOG FROM THE SCOTTISH HIGHLANDS TO THE HINTERLANDS

END OF WATCH



By Richard Webber | Photography by Stan Papior



Salt water

laps over the hood as we wade through the churning sea, and the engine note slowly drops to a dull, sickening groan. A mile of North Atlantic swills behind us, the same in front, and even though the Land Rover Defender 90 has tussled and bludgeoned its way across more than 216,000 miles during its 20 years, this might be its last few moments of life.

Two days earlier we began our testimonial tour to celebrate the life of the Defender, which, when it ceases production early next year, will end a 67-year bloodline that began with the Series 1 Land Rover and has yielded more than 2 million vehicles. A replacement is expected around 2018, but it will be an allnew model.

Our aim is simple: Test the Defender's mettle one last time before it totters off into history, not with a shiny new vehicle stocked with mollycoddling extras but a gritty, go-anywhere, old 90. We meet the truck in Scotland's capital city. Tousled by 20 Scottish winters, its light blue paintwork is faded, and the Defender has grown hems of rust. A smattering of owners club stickers speak of a car equally cherished and chastened, while another reads "Eilean a' Cheò," meaning "Island of Mist" in Scotland's native Gaelic tongue, revealing that the car lived once on the Isle of Skye.

That is where we are headed on a 250mile slog northwest. The engine screams out for a sixth gear as we span the suspended Forth Road Bridge then take the sweeping A9 trunk road that slices through the heart of the Highlands. Broad, bare, glaciated valleys are replaced by cozy, wooded ravines after we cut west at Dalwhinnie, where a cluster of whitewashed buildings topped with copper roof caps turn out malt whisky. The traffic thins, and the warm summer sun energizes valley floors into glowing greens. We pass Eilean Donan Castle, stranded at the junction of three lochs, and on over the Skye Bridge. Beneath a fluorescent pink sunset the Defender's steering wheel, worn to a shiny finish, gets a workout as we thread through the Quiraing: eerie, ragged rock formations where cattle were once hidden from Viking raiders. By 10:30 p.m., the sun has barely set as we reach our overnight stop on the northernmost tip of Skye.

Day two starts aboard a ferry to the Outer Hebrides, the fragmented arc of wild islands that shields Scotland's west coast from the North Atlantic's ire. On the Isle of Harris, our Defender is suddenly king of the road as tourists peel aside, mistaking us for busy farmers. It nestles into the single-track roads, the whistling turbo and growling engine pushing us along nicely. Its weak brakes aren't appreciated, however, when we come upon a flock of errant sheep.

On Harris' west coast, cyan seas crash onto countless butter-colored beaches. Above one, we meet Donald John Mackay, busy in his shed weaving Harris Tweed—the coarse, earthy woolen fabric particular to these islands and worn by discriminating dandies the world over.

We stop to plunder a tidal riverbed teeming with mussels before paying a pittance for a lunch of fresh lobster at a roadside shack. The paved urban life suffered by so many valeted Land Rovers couldn't seem farther away, and it's wonderful. On another short ferry ride to North Uist, we gawk at the enormous shadow and huge exposed fin of a 20-odd-foot basking shark moseying by.

Near the village of Sollas, we meet our local contact, farmer Angus MacDonald, who greets us with a firm handshake and a grinning beard that almost blends into his chunky sweater. The road ends here, but to reach the very edge of Scotland, we must get to the 650-acre island of Vallay (spelled Bhàlaigh in Gaelic, pronounced vaa-lay), home to nothing but MacDonald's prized, shaggy, horned highland cattle. We can see Vallay, two miles away, but the flat sand between here and there wouldn't remotely challenge the Defender. So we wait.

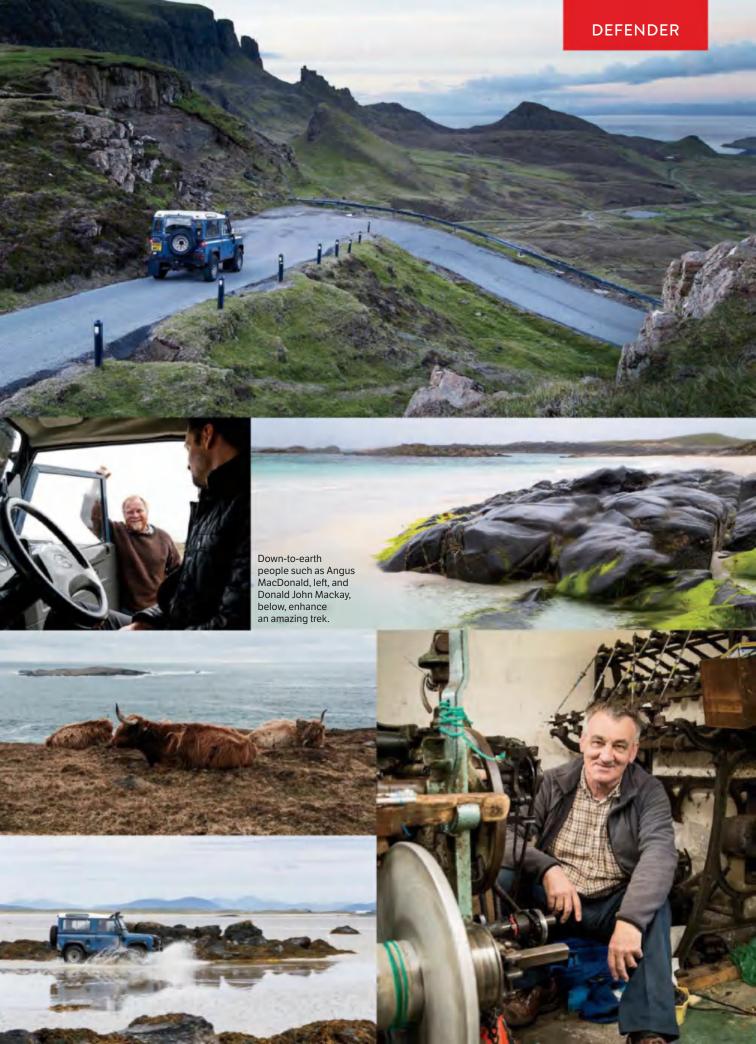
The next morning, the weather closes in and the restless North Atlantic swallows the tranquil sands. Depth markers reveal the water is around 4 feet deep. The Defender's stated wading limit is just over a foot and a half. But Land Rover must have engineered in a healthy tolerance. Surely. Surely? Save the snorkel, our car is standard. A 2.5-liter, turbodiesel four-cylinder engine makes just 111 horsepower and 195 lb-ft of torque, but low range and a differential lock will help us make best of the available shove, and breather pipes will let air out of the gearbox, transfer box, and both differentials without letting water in.

But if the raised air intake leaks, the cylinders will draw in water; avoiding engine carnage would mean shutting down and waiting for the tide to wane before being











Mr. Defender

How
did the
Defender
get its
name—
and why?
Bill Morris,
Land
Rover's
chief
engineer at
the time,
tells the
story

BY STEVE CROPLEY

BILL MORRIS WAS
Land Rover's chief
engineer when the
Defender was new, and
we've enlisted his aid to
clear up a mystery that
surrounds these Land
Rovers of the 1980s and
early 1990s: when and
how they first came to
wear the name.

For many, every Land Rover with the profile and layout of the Wilks brothers' 1948 original is a Defender, an easy assumption as the 67-year-old design prepares to "retire" from today's Land Rover lineup. But the name didn't become official until the 4x4 was almost 40 years old, and it wasn't actually written on a Land Rover until 1990.

"The story started in the 1970s," Morris says. "I'd been the engineer responsible for the Land Rover Series III, so I was in the right place to experience the growing pressure from the [British Leyland] board to improve the Land Rover, which had been in production for nearly 30 years and needed a rethink."

Customers' major demand was for a bigger engine than the company's old 2.3-liter gasoline and diesel four-cylinders and 2.6-liter gasoline V-6, especially in the face of competition from Toyota and Nissan.

"The only viable big engine we had at the time was the 3.5-liter V-8 from the Rover saloons and Range Rover," Morris says, "so we dreamed up a couple of improvement steps for the Land Rover. In stage one, we'd fit the V-8 to the long-wheelbase model and convert it to permanent four-wheel drive. That became the One-Ten [110]. For stage two, we'd improve the suspension by fitting the coil-spring system from the Range Rover. For stage three, we planned to come up with a new body design, but it never happened. People who still love the way the Defender looks now will probably think that was just as well."

Morris initially was not pleased with the idea of converting the Landie suspension from leaf springs to coils. "I thought we'd run into damper trouble because leaf springs have their own damper effect," he

says. "With coils, the wheels would move further and more often, so we'd need better, longer-travel dampers.

"I also thought the leaf suspension placed its own limits on performance, which in turn helped our overall durability. I was right on both counts, but we managed to overcome the problems. And it became obvious very quickly that coil springs delivered better comfort."

By 1983, Land Rover was making coil-sprung, permanent 4x4 110s (launched at home in Solihull, England) and a year later unveiled the shorter 90 model (whose wheelbase is actually 92.9 inches) at the Eastnor Castle estate near Ledbury, where it developed all its vehicles. With those changes, accompanied by modern but gentle styling updates, the staple Land Rover moved into the modern era, not so different (apart from a string of later engine changes) from the models made today. The Defender name has served the company well. but it came about for predictable reasons.

"It was driven by the confusion that ensued when Land Rover and Range Rover products were sold together," Morris explains. "Land Rover Ltd. was hived off from the main Rover concern in 1978, and it caused immediate uncertainty among customers. Was a Range Rover a Land Rover? And if it was, what was the Land Rover brand for?"

The matter came to a head after Land Rover

launched the Range Rover across the Atlantic, using a company called Range Rover of North America. Three years later, as officials prepared to launch the Discovery in America, even more confusion ensued. Why were the Range Rover and this newfangled Land **Rover Discovery** differently named? The question was especially important to those who knew how closely the two models were related under the skin. The issue of nomenclature was described by one company exec as "an unholy mess."

The plan to adopt the Defender name for the staple Land Rover is attributed to then-product planning director Alan Edis. The rationale was simple: Land Rover was big in the defense industry. What's more, its role as Land Rover's mainstay (at a time when the Range Rover was still a low-volume offering and the new Discovery had yet to make a big impact on buyers) was to defend the company's hard-won place in the 4x4 world.

Arguably, it has even more market appeal today. Looking ahead, Land Rover models will be organized into three families: Range Rover, Defender, and Discovery. A model's family will be identifiable easily by three-dimensional letters across the hood's leading edge. The logical system that has been needed since the Range Rover appeared in 1970, and began with the adoption of Defender 20 years later, has at last reached maturity a further quarter of a century later.

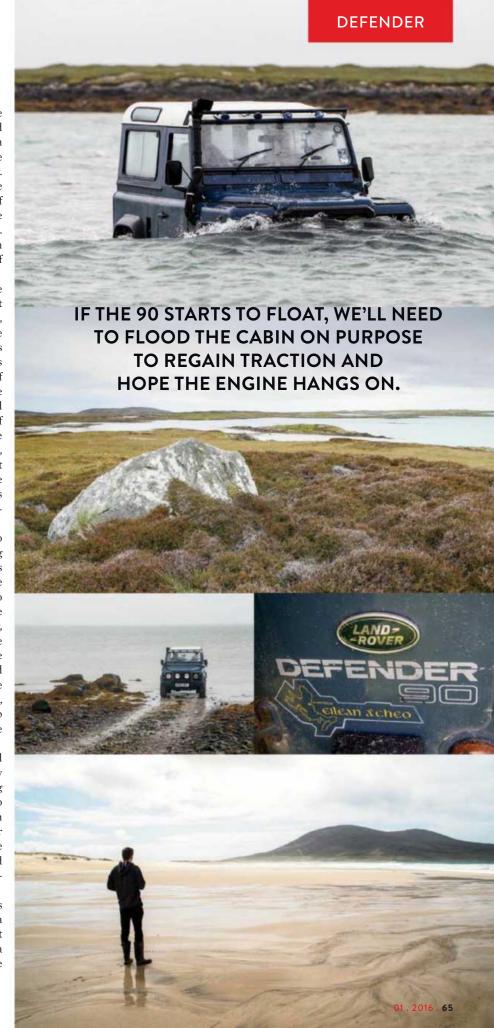
towed, red-faced, to safety. And though the sand is mostly firm, patches of quicksand could easily gobble up our wheels. With MacDonald navigating, we wade into the churning water. Up to 2 feet, it's easy going. The steering weights up a little, and the engine's drone is joined by the sound of water splashing against our hull, but we're crawling along without too much trouble. It's an odd sensation, the freedom to roam around a huge expanse of water, a view of rippling waves from every window.

As depth increases, we slow to keep the all-important bow wave just ahead of us. It carves out pockets of air down our flanks, keeping water out of the cabin. Lose momentum or turn too sharply and its protective shield will disappear, leaving us pickled in brine like a pair of gherkins. If the 90 starts to float, we'll need to flood the cabin on purpose to regain traction and hope the engine hangs on. At a depth of about 3 feet, our bow wave rises above the hood and fans a huge V-shape around us, and gusting winds vaporize the wave crest and smash it into our windshield. The wipers can't keep up, and the cabin is fogging, too. Opening a window for ventilation yields only a face full of spray.

We've been traveling with the tide so far, but we turn into it while threading through some islets. The bow wave starts to collapse and compress against the Defender's grille, the engine begins to strain, and we rush a downshift to preserve momentum. The water gets even deeper, and we have to turn sharply, sacrificing the bow wave. The hood gets swamped, the engine note falls, our heart plunges, and MacDonald curses. We silently beg the crankshaft for just a few more revolutions, just to keep us moving. The ancient lump digs in, and with the tide helping once more, we get back up to speed.

At last we enter the shallows around Vallay. Our bow wave is replaced by rumbling whitewater, the wheels kicking up triumphant rooster tails. We climb onto terra firma, the headlights half-filled with water but our feet, incredibly, dry. Our Defender had just traversed some of the toughest of its 216,000 miles, but it faced them with the same characteristic relentlessness that defines its breed.

We cross the island's flowering meadows then clamber over a rock-crawl onto a stunning, deserted beach. With nothing but Atlantic Ocean between here and Nova Scotia, we've reached journey's end. It's the perfect place to say goodbye.



Standing on their own

By Ronald Ahrens | Photography by Brian Brantley

Garish to some, gorgeous to others, neoclassics such as the **Clénet** are now classics in their own right

Steve Kouracos, below, was on his lunch break when a man who pulled up looking to paint a hand-built roadster would change his life forever.

uring lunch one day in 1976, 23-year-old Steve Kouracos was sitting outside Sam Foose's Project Design custom body shop in Southern California eating a sandwich when a long roadster pulled up to the curb. It had a big grille and flowing fenders like an old Duesenberg, but it was new and in desperate need of a paintjob.

"Are you the painter?" asked Alain Clénet, the man behind the wheel. Kouracos had worked at the shop for about four years as a painter's assistant but had never been allowed to paint bodywork. Foose, auto designer Chip's father, was the man with the spray gun; Kouracos sanded and masked. He stopped chewing his sandwich and said, yes, he was indeed the painter. "Would you come to my home and help me paint this car?" Clénet said in a heavy French accent, leaving his name and address.

It proved an auspicious moment in the history of neoclassic automobiles. The Lincolns and Cadillacs monopolizing the luxury market lacked the chrome-plated Zenith wire wheels, exposed exhaust pipes, large bugling horns, running boards, and Waterford crystal ashtrays that attracted extroverts, showmen, and attention-seekers who wore gold chains and chunky rings and wanted to see a car's spare tire, not hide it away. The Frenchman was addressing these shortcomings by launching a car company,



Clénet Coachworks, and building grandiose showstoppers his way.

"Alain's timing was perfect," says Kouracos, now 62 years old. We met him and his wife, Carolyn, at a shop in Rancho Santa Margarita, California, where he's restoring a Ferrari Dino as part of the Dino Project (dinoferrariproject.com), which helps build awareness for muscular dystrophy research. "He knew there was a market that was dropped," Kouracos continued. "He wanted to get on that bandwagon."

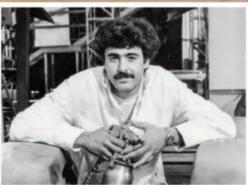
Clénet, then little more than 30 years old, had impeccable timing. As the government started hanging ugly 5-mph bumpers on cars, Clénet, trained in Paris as a designer and seasoned in Detroit,

sketched his roadster on a napkin, shamelessly including every piece of fabulous gingerbread and chrome from the '30s. He would go down the same avenue neoclassic pioneer Excalibur Motors did in 1964, but with an even grander creation incorporating a largely metal body, hand-laid fiberglass fenders, and an original radiator shell.

Kouracos recalls going to paint the prototype he'd first seen during his lunch break and finding the body scratched by coarse 36-grit sandpaper. "It was horrible," he says. He produced a "Class A" white-and-tan paint job, and Clénet exhibited the car at the 1976 Los Angeles auto show. "It went over like gangbusters," he says. With orders in hand and financial backing from









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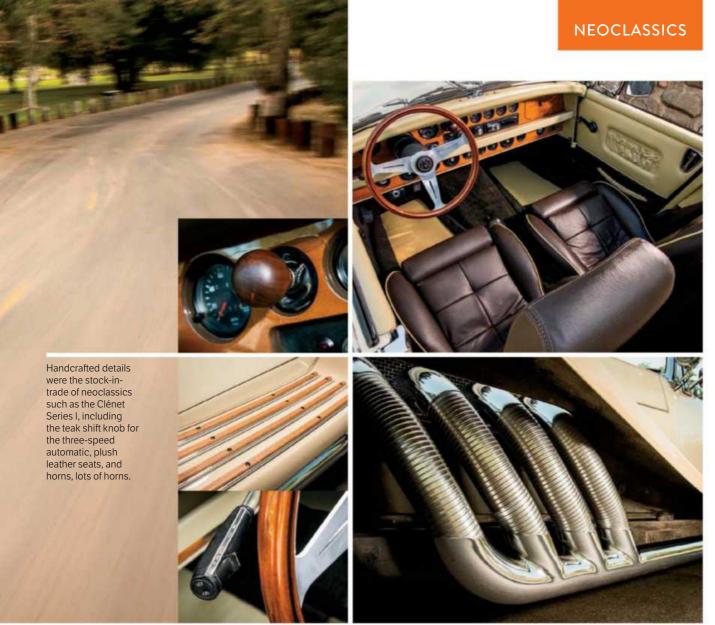
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Kouracos, left, the man with the spray gun, during the salad days. Alain Clénet, above in "Fortune" and top right, was able to pull off his vision but ultimately couldn't sustain it and lost the company. Right, the assembly line in Santa Barbara was busy for a while.







KOURACOS SAYS 15 GUYS BUILT THE FIRST 10 CARS. WITH NO PAINT BOOTH, HE PAINTED PARTS BENEATH A FABRIC CANOPY OR THE WINGS OF A SUPER GUPPY CARGO PLANE.

investment partners, Clénet Coachworks commenced series production in a hangar at the Santa Barbara Airport–transformed from a napkin sketch to a real car company in hardly more than a year. Clénet's gambit was to let others do the engineering while his team concentrated on assembly and finishes.

"He really pulled it off, no question about it," says Jack Telnack, a retiree who led Ford's design efforts in the '80s. Telnack says Clénet's car was more "a collection of clichés" than a breakthrough, "but it made an extremely strong statement. It conjured up all the features and design elements that people would associate with a classic car."

Right around the introduction of the Clénet Series I, Telnack returned to Dearborn from a European assignment to find his boss, Gene Bordinat, driving one around Detroit. Bordinat belonged to what Telnack calls "a special breed." He gloried in the unsubtle and drove around with his left arm hanging out the car to show off his prized wristwatch. Clénet's creation got the attention of the press, with coverage extending even to People magazine. Clénets appeared in TV shows "Dynasty" and "Dallas" and ended up in the driveways of singers Rod Stewart and Wayne Newton, boxer Ken Norton, and actress Farrah Fawcett.

Of those who have built their own

cars—E.L. Cord, Preston Tucker, John DeLorean, Henrik Fisker—none ever thought of anything like Clénet's moneysaving twist on coachwork. The company bought new Lincoln Continental Mark V coupes (list price: \$11,396) from a local dealership and removed each body before sectioning off and strengthening the frame with cutting and welding torches. "He kind of went overboard on the strengthening part, but that was just the way he was," Kouracos says.

The replacement body came from an MG Midget, found by a scout who sought out promising salvage cars or good used ones, and underwent a singular makeover before being attached to the mega-Conti

NEOCLASSIC MOVERS AND SHAKERS

A quick look at a few other coachbuiling companies that had their day in the sun before flaming out











Charle Good ook 68/250

1. EXCALIBUR AUTOMOBILE CORPORATION

WEST ALLIS, WISCONSIN, 1964 TO 1995

Studebaker design consultant Brooks Stevens had a great idea for the 1964 auto show circuit: Put a Mercedes-Benz SSK replica body on a Studebaker Daytona convertible. One thing led to another—Studebaker was going bust—and Stevens and his sons ended up in the manufacturing business. Fiberglass-bodied, Chevy-powered, and priced from \$6,000, the Excalibur roadster opened the door for neoclassics. Phyllis Diller owned four Excaliburs.

2. ZIMMER MOTOR CARS

POMPANO BEACH, FLORIDA, 1980 TO 1988

Like the Clénet and Excalibur, the first Zimmer Golden Spirit was sketched on a napkin, but that was its last demure moment. A Ford Mustang chassis was stretched to a 142-inch wheelbase, and the bawdy body extended 214 inches. The Golden Spirit overused every cliché, from the bevy of air horns to the padded top with landau bars. When a four-door model with optional wet bar and TV became available, Zimmer boasted, "Its impressive size and classic design guarantees (sic) special treatment always."

3. CLASSIC MOTOR CARRIAGES

MIAMI, FLORIDA, 1982 TO 1999

In the mid-1970s, Classic Motor Carriages billed itself as "Purveyors of fine Horseless Carriages to the Nobility and Gentry." It made Bugatti and Mercedes replica bodies for Ford Pinto or VW Beetle chassis. Then ambition struck, and in 1982 it started producing the Classic Tiffany, a car similar to the Golden Spirit in most aspects. The Florida attorney general sued in 1994 after complaints about Classic Motors' sales tactics, and the company shut down in 1999.

4. STUTZ MOTOR CAR OF AMERICA

NEW YORK, MODENA, AND CAVALLERMAGGIORE, ITALY, 1970 TO 1985

The Stutz Blackhawk, penned by noted auto designer Virgil Exner, used an extreme approach that accorded with the neoclassic movement, starting with the immodest array of headlamps and driving lamps. As the reincarnation of the Stutz of old, the Blackhawk offered Italian-built coachwork on a modern Pontiac chassis. Elvis Presley outdueled Frank Sinatra for example No. 1.

frame with rubber grommets. The front "razor clam" fenders were fiberglass, and the radiator shell was a chrome-plated steel stamping. But it was the Clénet's steel hood that left a lasting impression on Kouracos. "I remember sanding all those louvers. They were a real pain in the ass."

Kouracos says 15 guys built the first 10 cars. With no paint booth in the hangar, he painted parts beneath either a fabric canopy or the wings of a Super Guppy cargo plane. Output rose to nine or 10 cars per month, the staff grew to about 75 or 80 employees, and "we finally got enough money to set up a nice spray booth." Kouracos would finish the acrylic enamel coatings with very fine 1,000-grit sandpaper, removing the dapple left by the fast-drying paint, so the cars glistened spectacularly. Lee Iacocca, who was Chrysler CEO at the time, flew in with his entourage on the automaker's jet,



This particular Clénet Series I was part of a 250-car run. Owned by Ron Watkins, it underwent a complete restoration and gets some TLC from Kouracos, left. Don't worry, Ron, that'll buff right out.



ordered two cars, and specified a slower drying lustrous lacquer instead.

The Clénet Series I "was a handmade, coachbuilt car," Kouracos said. It looked like a classic, but the available 460-, 400-, and 351-cubic-inch V-8 engines all made for effortless cruising, with the driver controlling a three-speed automatic transmission via a chrome shaft topped with a teak knob mounted inside a leathery, air-conditioned cockpit. The price started at a shockingly high \$27,500 and went way up from there.

But like so many fledgling car companies throughout history, Clénet Coachworks eventually went bust. Kouracos left in 1980 after seeing and disliking the Series II prototype, which used a Volkswagen Beetle convertible body. Clénet squabbled with a financial partner, and formidable competition built pressure in the marketplace. Soon, Clénet filed for bankruptcy and lost the company. (Clénet has since retired and lives in the Santa Barbara area.)

Many welcomed the company's demise. Sports-car enthusiasts gnawed their key fobs, and the chauffeured gentry spit up their Moët & Chandon when Clénet said, "Take a Porsche 928 and a Rolls-Royce. Put them in a bag and shake it up. What you get is our car." Even legendary auto designer Gordon Buehrig (whose Duesenbergs were being copied) found neoclassics "too garish." But some, like Clénet, saw neoclassics as beautiful and pure, and that sentiment continues today. In 2012, the Antique Automobile Club of America created a class for second-generation collector vehicles, making Excaliburs, Clénets, and Zimmers eligible for awards. Kouracos has recently

consented to undertake the restoration of a Clénet Series II, and values of similar cars have held steady in private sales and at auctions. A 1974 Excalibur SS Phaeton, once Jackie Gleason's car, brought \$55,000 at Auctions America's Fort Lauderdale sale in 2014.

"Everything evolves," says auctioneer Donnie Gould. "As you get older, your tastes adjust. Even though you might not be attracted to that car now, in 20 years you may well be, and I believe there will be more and more people that would like to have them." Are neoclassics the apogee of automotive design? Not now and probably not ever. But their often peculiar and extravagant eccentricities helped them stand out then, and they continue to stand out today, just like they did for the young man eating a sandwich outside a body shop in Southern California.





What makes the all-new Duramax 2.8L Turbo-Diesel available on the 2016 Chevy Colorado such a winner?

No other midsize truck can do what Colorado can with the all-new Duramax 2.8L Turbo-Diesel engine. It offers the best towing and torque of any midsize pickup.

Can you give us a rundown of the truck's power?

The Colorado Duramax Turbo-Diesel delivers 369 lb.-ft. of torque, which raises available towing capacity up to 7,700 pounds.\(^12\) That's 13 percent more towing power than the most powerful Toyota Tacoma.\(^13\) The high torque level also makes it really fun to drive. You get behind the wheel, press the gas pedal and think, "Wow, this is pretty dramatic."

How did engineers prove the durability and reliability of the Duramax 2.8L Turbo-Diesel engine?

We spent three years testing it in extreme conditions, ranging from brutal minus-40-degree temperatures in Canada to scorching 125-degree heat in Death Valley to altitudes as high as the Rocky Mountains.

We noticed the Colorado Duramax 2.8L Turbo-Diesel engine has exceptional stopping power. What's behind it?

The truck features an exhaust brake system, a driverselectable feature that uses the turbine control of the variable-geometry turbocharger and the compression of the engine to improve vehicle control and reduce brake pad wear. The feature is integrated with the cruise control and varies the braking to account for the grade and vehicle load. Owners will truly appreciate the exhaust brake system when towing.

For the performance, durability and efficiency of a diesel, there is simply no other truck that can do what Colorado can.

Scott Yackley
CHEVROLET ENGINEER



RICHARD MARDEUSZ CHEVROLET ENGINEER

The Duramax 2.8L Turbo-Diesel engine is surprisingly quiet. What's the secret?

To control vibration and noise, we integrated a device called the Centrifugal Pendulum Vibration Absorber, or CPVA, in the torque converter used with the standard Hydra-Matic* 6L50 6-speed automatic transmission. CPVA technology is more commonly found in more expensive applications and aircraft. It's the first-ever application of a CPVA in the midsize pickup segment.

How does the CPVA work to mitigate vibration and sound?

The CPVA is an absorbing damper with a set of secondary spring masses that — when energized — cancels out the engine's torsional vibrations so the driver and passengers can't feel them. In its unique design, the spring masses vibrate in the opposite direction of the torsional vibrations of the engine, balancing out undesirable torsional vibrations.



This is the

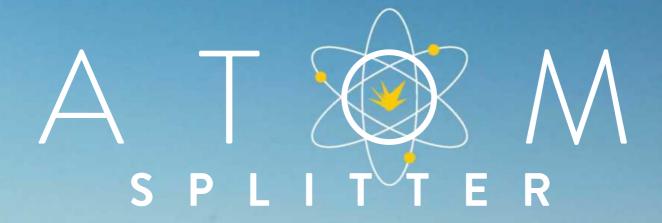
first public reveal of the Rezvani Beast. We are the first media outlet in the world to see it, and we're the first to drive it, as well. There are no bright auto show lights, and this is no catered press event. Instead, we're outside a Starbucks on an uncomfortably humid morning in Irvine, California, about 15 miles from Rezvani Motors headquarters. That's right. The car named "Beast" is built here in Southern California.

Ferris Rezvani, the car's creator and company founder, is trying to give me the scoop, but he's finding it tough to answer more than a few of my questions without passersby barraging us with queries of their own about the waist-high, doorless, carbon-fiber-bodied sports car parked streetside. The most asked question is, "What is it?" followed closely by, "How much horsepower?" and "What's

the price?" Ferris answers each inquiry politely, graciously. After all, we're not far from a stretch of Pacific Coast Highway lined with Ferrari, Maserati, McLaren, and Porsche dealerships. These might be more than looky-loos. These might be customers.

All have understandably never heard of the Rezvani Beast before, so Ferris enlightens them. It shares its basic bones with the Ariel Atom, the diminutive, skeletal British supercar that's about as practical as a motorcycle. The base Atom is powered by a mid-mounted, 300-hp, supercharged, 2.4-liter Honda K24 I-4. It has two seats, a steering wheel, a gear lever, some pedals, and not a whole lot else. In stock form, an Atom is about the closest you can get to driving a formula race car to work. The Beast is no stock Atom.

By Rory Jurnecka | Photography by Robin Trajano



RAUCOUS REZVANI BEAST PROVES

COACHBUILDING IS ALIVE AND WELL
IN SOUTHERN CALIFORNIA

As a boy growing up in Texas, Rezvani had dreams of flying. The son of an Air Force F-4 Phantom pilot, he parlayed childhood dreams of jet fighters into a career building supercars. Fast cars, he figured, were the next best thing to supersonic jet fighters, and Rezvani ended up cutting his teeth at Dutch boutique automaker Vencer, producer of the \$450,000, 622-hp Sarthe supercar. As spectacular as the Sarthe's stats are, Rezvani felt the need to create a car of his own that spoke to a broader audience.

"I felt that the market was missing an enthusiast car in the '60s spirit," he explains, "something lightweight with classic





design and a lower price point."

While the Beast's \$130,000 base price hardly qualifies as affordable, there might not be anything else for the money that looks quite this radical, this exotic. In a locale where supercars are almost commonplace, the Beast demands attention from nearly everyone. Credit its sculptor, Samir Sadikhov. Born in Azerbaijan and now residing in Cologne, Germany, Sadikhov is a young automotive designer with experience at both Ford's German arm and Lamborghini. He and Rezvani formed a friendship via the Internet, and after they chose the basic canvas, it wasn't long before Sadikohv had drafted a carbon-fiber skin to stretch over the Atom's steel skeleton.

"We had a really nice package to start with that gave me a lot of freedom," Sadikhov says. "Usually there are so many restrictions, which just block creativity."

Once Sadikhov finished the sketches, a CAD program analyzed the aerodynamic performance of the car's virtual carbon panels. In fact, all design work was done via online collaboration. The Beast's body is a mix of form and function, its lines angular and aggressive yet practical. "Car companies these days are putting grilles and blades everywhere," laments Sadikhov. "They don't work, mostly. They're just makeup."

The massive rear diffuser is functional, says Rezvani, helping to suck air out from under the car. The Beast's bodywork also knocks the Atom's disappointing 0.65 drag coefficient down to 0.35, even with a track widened by 10 inches in the front and 8 inches in the rear. Overall, the Beast is as wide as a Lamborghini Aventador but about 2 feet shorter and 6 inches lower.

Following the CAD work, the transition was quick from computer screen to a real, driving, street-legal vehicle. "This car was quite an unusual design process for me because usually, when you're working with a full-size car, you're working with clay," says
Sadikhov. "This car was done all in one shot, digitally."
Rezvani says the process from napkin sketches to fully functioning vehicle spanned about 18 months. In fact, Sadikhov flew in to see the car for the first time in person three days before our meeting, a moment he describes as "beyond belief."

The company's Santa Ana, California, shop is about 10,000 square feet, and there





are just four employees in the build process. Each car takes about three months to complete. The process starts with an Atom shipped from England, which is torn down to the chassis. Reassembly then begins, with steel underbody supports added to mount the bodywork. A flat, underbody floor is also added to improve aerodynamics, and the track is widened. Then the interior trim, in-housedesigned wheels, and rear LED taillight assembly are installed. Customers can specify paint, interior materials, and color among a host of other custom options.

Climbing into the Beast is tricky at first, but it gets easier with practice. The method that seems to work best is throwing your right leg over the side, standing on the seat bottom, and then pulling in the left leg. Once I'm settled in, the carbonshell seat proves surprisingly comfortable. Four-point, camlock harnesses are adjusted and fastened. A look around reveals a cabin far from plush but that's also hardly a bare-bones Ariel. There's carpeting and sound deadening, faux-suede-trimmed door panels-even a radio and rearview camera. To fire the engine, you flip a silver switch up then hit a start button mostly obscured by the steering wheel.



The Beast barks on startup and then settles into a surprisingly quiet idle. Today I'm driving a Beast Speedster, the base-level 300-hp car. It feels plenty quick given that it weighs just 1,650 pounds, about 300 pounds more than an Atom. The Rezvani responds to the controls instantly, as if you were driving a racing car. The conventional six-speed manual gearbox has short, precise throws, and the medium-effort steering is highlighted by addictively quick turn-in.

Winding out the engine produces a manic howl from the supercharger almost as loud as the exhaust. Rezvani's standard Beast makes a whopping 500 hp from a Rotrex-supercharged Honda K24 built in-house.

THE SPECS

ON SALE:

Now

PRICE:

\$130,000/\$150,000 base/as tested (est)

ENGINES:

2.4L supercharged DOHC 16-valve I-4/300 hp @ 7,650 rpm, 225 lb-ft @ 5,850 rpm; 2.4L supercharged DOHC 16-valve I-4/500 hp @ 7,350 rpm, 374 lb-ft @ 5,950 rpm

TRANSMISSIONS:

6-speed manual, 6-speed sequential manual

LAYOUT: 0-door, 2-passenger, mid-engine, RWD roadster **FUEL MILEAGE:** N/A

L x W x H: 165.2 x 80.1 x 38.3 in WHEELBASE: 92.3 in WEIGHT: 1.650 lb

0-60 MPH: 2.7-3.5 sec (est) **TOP SPEED:** 165 mph (est)

Driving at sane speeds reveals the Beast is equally at home tooling around town. It's as easy to drive slowly as it is quickly, and it's pretty darn livable for something that looks so aggressive. As Rezvani demonstrates, there's a small trunk behind the engine that will fit the all-important set of golf clubs.

Plans are underway for additions to the Rezvani lineup, including a new car: a 700-hp Beast X coupe based on a Lotus Exige tub. Sadikhov is working on the design, and Rezvani has his eyes on growing the workshop to the building next door. We won't be surprised if with each potential customer's test drive, steadily increasing demand for the Beast more than warrants the expansion.



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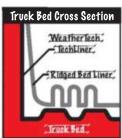
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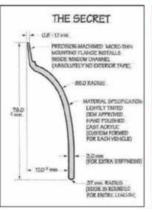
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2014 CADILLAC CTS VSPORT

The poster car for a luxury brand in transition



rom the moment it replaced the Catera, the Cadillac CTS established itself as the brand's first credible shot at taking on BMW, Mercedes-Benz, and Audi as a competitive luxury brand.

More than a few believe the present CTS, launched in the 2014 model year, is already on the German competition's rear bumper, thanks in part to Cadillac chief engineer David Leone's adherence to Lotus founder Colin Chapman's "add lightness" dictum. Though longer in wheelbase and overall length than the second-generation model, the alchemical use of aluminum, high-strength steel and strategic body reinforcement on the latest CTS has dramatically lowered the car's overall weight, making it the lightest car in its class.

We were impressed with the new CTS when we first got into it, so much so that we named it one of our 2014 All-Stars and subsequently ordered a Cadillac CTS Vsport for a Four Seasons test. This twin-turbo, 3.6-liter V-6-powered model promised a comfortable compromise between the more sedate base 2.0-liter turbo-four and naturally aspirated V-6 models and the 640-hp, supercharged 6.2-liter V-8 CTS-V that was still two model years away.

The basic Vsport package provided pretty much everything we wanted in a

Upshift

Cadillac sport sedan. Besides the aforementioned twin-turbo six, our Vsport included a capable eight-speed automatic, performance suspension with Magnetic Ride Control, electronic limited-slip differential, dual exhaust, Pirelli P Zero run-flat tires, Brembo brakes up front, and silver-painted aluminum 18-inch wheels.

We didn't tick the box for the \$10,000 Premium package, which would have added full-leather seating instead of just the surfaces, plus a sunroof, configurable instrument panel, and other goodies that eat into weight savings. Our only option was the car's \$495 Majestic Plum Metallic paint job, which pushed the bottom line to \$60,490.

We were short on long trips with this car, but there were trips to Philadelphia and quick jaunts to the Milwaukee area, Nashville, and Michigan's idyllic Leelanau Peninsula. But no matter how near or far we went, the consensus from staffers was that the new Cadillac is moving in the right direction with the Vsport's sport/luxury mix.

"I like how it feels wholly different from any midsize luxury competitor I've driven," said daily news editor Eric Weiner. "It's luxurious, yes, but this car is so Despite our dire predictions, the motorized cupholder cover kept going all year. However, the Cadillac User Interface was a constant disappointment.

much more of a purebred sports car than I was expecting."

"This is a seriously capable performance car, and Cadillac really nailed the driving dynamics," fellow daily news editor Joey Capparella added. "It's supple and taut and responsive and engaging and fluid ... everything you want in a sport sedan."

On a weekend blast to New Berlin, Wisconsin, where this reporter's parents reside, I found the ride stiff though not overly harsh.



RUNNING COSTS

MILEAGE

21,592

WARRANTY

4-yr/50,000-mi bumper-to-bumper 6-yr/70,000-mi powertrain 4-yr/50,000-mi premium care maintenance 6-yr/70,000-mi roadside assistance and courtesy transportation

SCHEDULED MAINTENANCE

6,933 mi: Oil change, oil filter replaced, \$0

14,288 mi: Oil change, oil filter replaced, tires rotated, multi-point inspection, \$0

WARRANTY REPAIRS

14,288 mi: Replace glove-box door damper. Fix misrouted cable inside rear door handle.

RECALLS

None

OUT-OF-POCKET

9,515 mi: Purchase, mount, balance winter wheels and tires, \$2,309

13,433 mi: Mount and balance summer tires. \$20

21,388 mi: New right front tire, plus mount and balance, \$262.44

FUEL CONSUMPTION

EPA city/hwy/combined: 16/24/18 mpg

Observed: 21 mpg COST PER MILE

(Fuel, service, winter tires) **\$0.28** (\$1.39 including depreciation)

TRADE-IN VALUE

\$37.100

*Estimated based on information from Intellichoice.com





(The car remained in Tour mode for most of the drive.) The parents, who own a 2008 CTS, were suitably impressed. Dad commented on the Vsport's straight-line performance, whereas Mom liked the comfort of the cooled front seats. The combo of broadcast and Sirius XM radio and iPod connectivity made the 700-plus-mile round trip go quickly, though the car's oft-maligned CUE touchscreen infotainment/ navigation system proved fussy at times when trying to switch between media.

Swap out summer tires for winters on a sports car, and you're in for more road/tire noise and some tread-squirm. The CTS Vsport proved no exception, but it was well worth the trade-off. A \$2,309 winter package from our partners at Tire Rack included Pirelli Sottozero Serie II run-flat tires on Moda MD19 wheels, a tire pressure monitoring system, and an Ateq VT15 monitoring tool. After getting it all mounted up, we gave the car to Michigan-based contributor Marc Noordeloos for most of January. An avowed German car fanatic, he threw some ice water on our collective Vsport love fest, although the winter setup might have colored his judgment some.

"The ride quality isn't good," Noordeloos said. "It's far too jittery The button below the shifter (near right) controls track mode and Magnetic Ride Control calibrations. Engineers managed to limit the wheel size to a weight-friendly 18 inches.



and stiff at low speeds, with too much subtle head-toss during in-town driving. I felt it, and passengers complained, especially those in back. And this is in the softest Tour mode. The stiffer modes didn't seem to fix poor body control."

During his time with the car, Noordeloos also tested the auto park-assist feature, which quickly located a spot but curbed the right front wheel at the end of the process. He at least liked the electronically controlled limited-slip differential. "Huge fun for drifting around in the snow—you can really get it sideways and bring it back in line."

Shortly after Noordeloos returned the car, Capparella crested the wave between Detroit's lingering winter and Nashville's early spring with a 1,600-mile round-trip to visit family.

"The CTS feels as sharp and as balanced as the ATS [our previous Four Seasons Cadillac], which is surprising given the CTS' 500-pound weight increase over its little brother," Capparella noted. "And this twin-turbo V-6 is ridiculously powerful."

Unfortunately, the CTS also proved similar to our long-term ATS in its less-than-stellar build quality. We noted disappointing creaks, and a fussy glove-box door required a visit to the dealer.

"The glove-box door dampers were askew," Weiner said, "so the dealer installed the same part and got it working. Apparently, this is an issue that happens with some

PRICES & EQUIPMENT

STANDARD EQUIPMENT

Leather seating surfaces; eight-way heated and ventilated power front seats with power lumbar support; driver's memory seat adjuster; split folding rear seat; 5.7-inch full-color Cadillac User Experience screen with navigation; Bose AM/FM stereo and CD player with surround sound, SiriusXM and HD radio (three months' free subscription); phone and audio Bluetooth; heated, leather-wrapped sport steering wheel; magnesium paddle shifters; power tilt-andtelescopic steering wheel; dual-zone climate control; air filtration system; inside rearview mirror with auto dimming; Rainsense windshield wipers; outside heated and power mirrors with driver's side automatic dimming; LED interior ambient lighting; universal home remote; highintensity Intellibeam headlamps with adaptive forward lighting; keyless push-button ignition; EZ key passive entry; adaptive vehicle remote start; front and rear park assist; automatic parking assist.



OUR OPTIONSMajestic Plum metallic paint. \$495

Upshift



regularity. The dealer then moved the owner's manual to the trunk because they claimed it didn't fit well in the glove box. Well then, make a bigger glove box!"

The twin-turbo V-6 also exhibited the same cold, rough idle as our ATS sedan equipped with the naturally aspirated 3.6-liter six. The problem in the Vsport wasn't as pronounced at first, but it worsened during the year. Since we could never get it fixed to our satisfaction in the ATS, we chalked it up to an engineering flaw, possibly inherent to the combination of the big V-6 and the super-stiff platform. Hey, there's a reason BMW arranges its six cylinders in neat rows.

Then there was tire drama. Daily news editor Jake Holmes visited Tire Rack in South Bend, Indiana, on his way to the Indianapolis 500. While there, a product expert noted some unevenly worn tread blocks (by now we had switched back to the original tires), which made the ride feel rougher and exacerbated the tires' willingness to tramline. The wear turned into a nasty split after senior editor David Zenlea drove to northern Michigan near the end of our test.

The Tire Rack expert we talked with chalked it up to hardcornering auto journalists, although diagonal wear on the front tire treads is apparently

common, especially in rear-wheeldrive vehicles. We replaced the right front P Zero (\$262.44) just before returning the car to Cadillac.

The tire issues summed up our year with the 2014 Cadillac CTS Vsport nicely; we drove the wheels off an American luxury sedan that is every bit as engaging dynamically as any car in its class. To the end, it remained a compelling performer, "Incredibly fluid and agile for a big car," remarked Zenlea after his tire-splitting journey.

But Cadillac still needs to get its act together on the ride-handling balance, interior quality, and engineering refinement fronts. The upcoming CT6 is designed to elevate the brand further with an all-new V-6 engine family that we hope will exorcise the rough-idle issues.

There is little doubt to us, though, after our year with the Vsport that Cadillac is approaching world-class status, and we look forward to seeing how the CT6 will fare in the next installment of Cadillac versus the Germans.

"We no longer have to make excuses for Cadillac," said Holmes. "We don't have to couch our affection for this CTS with the words, 'I mean, for a Cadillac.'"

2014 CADILLAC **CTS VSPORT**

STAR RATING:



BASE PRICE:

AS-TESTED PRICE:

\$60,490

ENGINE:

3.6L DOHC 24-valve turbocharged V-6/420 hp @ 5.750 rpm, 430 lb-ft @ 3,500-4,500 rpm

TRANSMISSION:

8-speed automatic

LAYOUT: 4-door, 5-passenger,

front-engine, RWD sedan EPA MILEAGE:

16/24/18 mpa

(city/hwy/combined) SUSPENSION F/R:

Strut-type, coil springs/

multilink, coil springs **BRAKES:**

Vented discs

TIRES F/R:

245/40R-18/275/35R-18 Pirelli P Zero

LxWxH:

195.5 x 72.2 x 57.2 in

WHEELBASE:

114 6 in

HEADROOM F/R:

39 2/375 in

LEGROOM F/R:

42 6/35 4 in

SHOULDER ROOM F/R:

56 9/54 8 in

CARGO ROOM:

13.7 cu ft

WEIGHT:

3.938 lb

WEIGHT DIST. F/R:

52/48%

0-60 MPH:

4.5 sec 60-0 MPH:

100 ft

1/4 MILE:

13.0 sec @ 109.4 mph

SKIDPAD:

0.96 g

Believe it or not, one of the most dynamically engaging cars in its class came from the offices in the GM Renaissance Center world headquarters in the background.



WINTER: CONNER GOLDEN, BACKSTREETS: PATRICK M. HOEY







X-Ice Xi3 Consumer Recommended

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Micro Pumps

Help remove water from the surface for improved contact with the road



Cross Z Sipes Aid in foul-weather traction while also improving treadwear and driving precision

Latitude X-Ice Xi2 Consumer Recommended



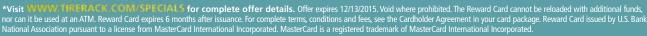
Light Truck/SUV Studless Ice & Snow

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FleX-Ice[™] tread compound is formulated to improve traction in all winter conditions by offering firmness at higher ambient temperatures for wet and dry road stability, yet remaining flexible in extreme cold-weather conditions for stability in snow, slush and ice.



All tires listed above meet the severe snow service performance standards of the Rubber Manufacturers
Association (RMA) and the Rubber Association of Canada (RAC) for snow traction.













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O brembo

STOP()TECH

Alfa Romeo 4C

MILES TO DATE:

18,742 / 4,679

10,113: Whether on canyon roads or racetracks, we fall deeper in love with the featherweight 4C after every apex we clip. **11,670:** Parking the 4C is a pain. Paltry visibility, unassisted steering, and high curbs send us scampering for the loneliest spot in the lot to maneuver in solitude. **12,893:** Impressive numbers out at the test track: 0-60 mph in 4.0 seconds, quarter mile in 12.6 seconds at 108 mph, 60-0 mph braking in 106 feet, and 0.96 g on the skidpad. **13,004:** Jealous of senior editor Chris Nelson's cross-country adventure, features editor Rory Jurnecka looks to prove he's tough enough for a long-distance haul of his own. The Alfa's highway noise gets the best of him, and he ends up resorting to earplugs. **14,766:** The

rear tires are toast. Between weekend joy rides and performance testing, it's no shocker. Supersticky Bridgestone Potenza RE-71R rubber comes to the rescue from Tire Rack—\$920.06 to buy, ship, mount, and balance. **14,943:** New shoes are the real deal. Braking from 60 to 0 drops to 97 feet, and we bust out 1.06 g on the skidpad. The 4C feels more planted and less nervous, too. **18,742/4,679:** Halfway through its Four Seasons test, a distracted driver smashes into the red 4C coupe. The crash severely damages the 4C coupe's left-rear wheel assembly and surrounding carbon-fiber bodywork. Bummer, but Alfa comes to our rescue with a brand-new, bright-yellow 4C Spider for the second half of our yearlong test.



JAGUAR F-TYPE V-6 S

MILES TO DATE:

10,461



3,901: Editor-atlarge Art St. Antoine says 380 hp is "hardly electrifying, but the V-6 sizzles under full boot, and the liftoff overrun is simply delicious." **7,801:** Someone smashed the windshield.
Spectacular. We file a report with the LAPD, then buy a new windshield

for \$1,128.25.

7,983: The F-Type gets attention from hot young ladies angling for a selfie. Before we can even cut the engine at the gas pump, they pounce on us with questions and Instagram requests. **8,781:** An oil

8,781: An oil change and scheduled service costs \$188.69.

9,004: Too much tire noise, too much body motion, scant interior and cargo room. Not the ideal grand tourer.

9,512: Officers
arrest the punk
who shattered our
windshield—a
serial smasher—
after a Gallagheresque spree in
Venice Beach.

can't be equipped

with one. Frustrating

SUBARU WRX

MILES TO DATE:

15,892

12,989: The Subaru's distinctive turbo behavior is an acquired taste. Some editors savor the wave of torque that surges from about 3,000 to 5,000 rpm. Others can't stand waiting for it or end up fighting against it in stop-and-go city traffic. **13,644:** The WRX takes hits like a champ. Despite its stiff ride and the constant punishment inflicted by dirt trails and Michigan's horrendous roads,

squeak or rattle out of the Subie's cabin. Even the six-speed gearbox feels as tight and precise as ever. **15,222:** On a 1,500-mile trip to Tennessee, we

average 33 mpg,

which demolishes the EPA-estimated 28 highway mpg rating. As menacing as it is at full blast, the 2.0-liter turbo-four sips premium like Macallan 28 when off boost.



FORD FIESTA ST

you feel 16 again."

reassuring, but it

takes up valuable

real estate in the

trunk Standard

Fiestas do without

and gain about 6

inches of crucial

cargo floor depth.

18,947: The Fiesta

backup camera, but

the ST inexplicably

Titanium gets a

spare tire is

18,434: The full-size

MILES TO DATE:

20 116



17,985: Contributor Marc Noordeloos: "The Ford Fiesta ST begs to be thrashed. I'm surprised I didn't go to jail during my month of amusement with our Four Seasons hot hatch. It scoffs off childish jumps over railroad crossings like my Impreza WRX from a decade ago. It has

given how much the rear spoiler blocks visibility out back.

20,004:

"Autocrosses are perfect for the Fiesta ST's scrappy, never-say-die

perfect for the Fiesta never-say-die attitude," says daily news editor Joey Capparella after an SCCA outing at Michigan International Speedway. "Its playful nature always goads you to ride on the ragged edge. There isn't a car out there for under \$25K that's anywhere near as fun as Ford's hot hatch."

MILES TO DATE:

JEEP CHEROKEE

we hear nary a

13,848: Remote start automatically activates the Cherokee's heated steering wheel and heated seat. On a cold winter's day, it's a wonderful feeling climbing into a car that already feels like the inside of a toasted biscuit. **14,856:** Mopar roof rails go to work as Detroit bureau chief Todd Lassa loads up the Jeep for a trip to Milwaukee. "The Thule carrier fixed easily to the roof." said Lassa, "but the extra wind resistance makes acceleration even

more tiresome."



15,433: This "mall-crawler" claws through 18 inches of unplowed snow and drifts merrily on a frozen lake in northern Michigan. **17,642:** Lots of great safety tech, but not all of it works. "Park Sense has a mind of

its own," videographer Sandon Voelker observes. "Every time I move in reverse, it automatically slams on the brakes and beeps wildly without provocation."



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H

ere it is, the season of the Rose Parade. And as you watch the dignitaries roll by in classic cars, it occurs

to you that it would be more fun to be in the parade than watch it.

Maybe you should drive the kind of classic that appeals to parade organizers everywhere, only scaled for mayors, prom queens, and Cub Scouts, not astronauts on Fifth Avenue. Not the 1952 Chrysler Imperial Parade Phaeton built for President Eisenhower, now a \$100,000 car owned by the Petersen Museum in Los Angeles, but something elegant yet affordable, like this 1965 Ford Thunderbird convertible.

In 1958 Ford designer Bill Boyer and his team transformed the

original, two-passenger 1955-1957 T-bird into a four-passenger "personal luxury car." The heavily styled 1958-'60 "Square Bird" was a modest sales success, as was the 1961-1963 "Bullet Bird" that followed, but Ford executives believed the car still wasn't reaching its full sales potential. So the 1964-1966 "Flair Bird" introduced Ford's new, more formal design vocabulary. It was a huge success. The Flair Bird's minimal ground clearance and rear fender skirts convey the illusion that it's floating just a bit off the ground, along the lines of Luke Skywalker's X-34 landspeeder as seen in "Star Wars: Episode IV-A New Hope." ("These aren't the droids you're looking for.")

As a parade car, the Flair Bird convertible is so wide and substantial that it won't get lost



The Flair Bird has all the right stuff from the space age era of design from the early 1960s plus a little bit of jukebox thrown in for good measure.

among the marching bands. It's also optimal to have the rear-seat honoree at eye level with the crowd, and this car, at just 53 inches from the road to the top of the windshield, does the trick. Meanwhile, it's only 22 inches from the rear deck—where the posterior of a notable might plausibly be resting—to the cushion of the rear seat below, so feet can be planted

1964-1966 FORD THUNDERBIRD CONVERTIBLE



COLLECTIBLE CLASSIC | BY BOB MERLIS

quite firmly during a parade's stop-and-go pace.

Our quest for the ultimate parade car led us to Palm Springs, California, where we found A.J. Wilson's '65 Thunderbird convertible, a nicely preserved car in Rose Beige. Wilson is the third owner of this car, which his brother Ron found not far from the Ford dealership in Auburn, California, where it was first sold a half century ago. The 1965 version is the first T-bird with front disc brakes, and we really love the '65's sequential rear taillights. When you indicate



With 4,500 pounds of road-hugging weight under you, make sure you have the front-disc brakes that come with the 1965 and 1966 models.



a turn, six bulbs per side blink in succession from innermost to outermost. This display of directional incandescence is joined by rear-facing "gun sight" indicators on the front fenders, parking lights tucked away on the front bumper, and, of course, indicators on the dash. The proto-psychedelic light show draws quite a bit of electrical current, as confirmed by the pulsations of the ammeter needle.

It's amazing that with just over 70,000 miles on the clock, the Thunderbird's convertible fabric top is the same one it wore in the showroom, and it's even more amazing that the top's crystal-clear plastic rear window is also still intact.

Thanks to much the same mechanism as used on the Lincoln Continental that was employed as the Kennedy presidential parade



WHY BUY?

Mid-1950s to mid-'60s Fords had an expressive style unlike the eras that came before or after, and the fourth-generation Thunderbird nicely represents the period, combining space age flamboyance with a little bit of landau roof formality. Sitting on a 113.2-inch wheelbase, this car's scale suits our modern eye. It also drives in a surprisingly modern way thanks to unibody construction and a trouble-free powertrain. although the disc brakes of the 1965 and 1966 models are a must-have feature for safety. Average values for the 1964-'65 cars are very affordable, and excellent examples go for about \$24,000, while the few examples of the 1966 car built with the limitedproduction 7.0-liter V-8 go for double that money, climbing to \$60,000 for concours-perfect examples.





THE SPECS

THIS 1965 THUNDERBIRD

ENGINE:

6.4L OHV V-8/ 300 hp @ 4,600 rpm, 427 lb-ft @ 2,800 rpm

TRANSMISSION: 3-speed automatic

DRIVE: Rear-wheel FRONT SUSPENSION:

FRONT SUSPENSION: Control arms, coil springs REAR SUSPENSION:

Live axle, leaf springs **BRAKES F/R**:

Discs/drums
WEIGHT: 4,588 lb

car, the T-bird's power-operated top stows in the trunk. The rear-hinged trunklid first raises, the fabric top folds as it retracts, and then it collapses into place before the lid snaps shut. Top down, the car's profile is totally smooth; there's no bulge of folded canvas under a tonneau cover to compromise the design's horizontality. It also leaves a nice, broad, flat seat upon which a parade princess can spread her full skirt and wave to the crowd.

The interior is, in a word. fantabulous. Ford designer John Najjar gave something of a NASA vibe to the overall interior package, and why not, since the advertising slogan for the Flair Bird initially went "Flight plan cleared-Proceed to Thunderbird." The ribbon-type speedometer threads along a path under backlit plastic numbers that recall the buttons of a 1960s jukebox. The Swing-Away steering wheel with its column-located gear selector swings about 10 inches to the right, making it easy for the driver to get out from under while leaving the car. The Thunderbird also has a kind of slow-motion ejector seat for the driver, and it tilts the bottom cushion to the left, helping milady to gracefully exit by gently spilling her out of the seat.

Aside from a repaint of the hood and trunklid, this '65 T-bird has been brought up to date by Wilson only in ways that don't meet the eve. Unless you open the hood, you wouldn't know that aftermarket air-conditioning has been installed, and the V-8 has been rebuilt with hardened valve seats. Wilson is happy with the car's performance and notes that it "flies like a bird." True enough, but this is one heavy fowl (a full 1,000 pounds more than the bulky Galaxie 500 LTD), and our drive time revealed that some wing flapping is needed to gather momentum for takeoff. But once at speed the car has a wonderful, assured feel.

We're convinced the T-bird of the mid-1960s is parade perfection, but even without accompaniment by a brass band, a car with this kind of presence is certain to draw a crowd.

Feature Car

2005 Ferrari 575 Maranello Superamerica **Sold at \$357,500**

S/N ZFFGT61A650142572

BLACK OVER TAN

leather interior. 532-hp,
DOHC 5.7-liter V-12;
six-speed automatic
transmission. As seen at
Bonhams, this Ferrari is less
than 13,000 miles from new.
It has been very well cared
for, and the interior
looks new.





THE STORY BEHIND THE SALE:

The Ferrari 575 is the second generation of the 550 Maranello, the retro-theme car with which Ferrari brought back a classic front-engine, V-12-powered coupe to its model lineup after a decades-long hiatus. The 575's bodywork carries a few more scoops and flares than the 550's similar Pininfarinadesigned shape, and it also features some of Ferrari's latest

technology of the times, as seen here in the racing-style, single-clutch, six-speed, F1 automated transmission with shift paddles on the steering wheel.

Ferrari built 599 examples of the Superamerica convertible with its "Revocromico" hardtop. This is actually a pane of glass that can be electrically dimmed to provide

increasing levels of solar protection for the passengers, and it can be removed and stored on the rear deck. (You don't even want to know what one would cost if you had to replace it.) Monterey auction newbies always look over affordable Ferraris, but this shows us that it is the car that makes a smart purchase, not the price. As an exclusive model, the

Superamerica has been increasing in value while many of the conventional Ferrari models of the day are still depreciating assets. Lesson learned: You should pay more for the exclusive features and options going in because they tend to make the car more exclusive and thus collectible as time goes on. You spend more, but you make more, too.



S/N 113.044.12.003756

WHITE OVER BLACK VINYL

interior. 180-hp, SOHC 2.8-liter inline-six; four-speed automatic transmission. This car, as seen at RM Sotheby's, has excellent paint and brightwork without pitting or cloudiness. The interior is in as-new condition. The engine and transmission are said to have been fully rebuilt recently.

This is one of the 23,885 examples of the 280SL built

1969 Mercedes-Benz 280SL

Sold at \$148,500

between 1968 and 1971, and it seems that these days every automobile

collector worldwide wants at least one. This was a two-owner car with both hard and soft tops, along with factory air-conditioning. The collectibility trifecta in a 280SL is two tops, air-conditioning, and the four-speed manual transmission, but this one comes close to ticking all the boxes. No doubt this is expensive for a 280SL, but the value of these cars has been going up speedily for the past four years.



S/N SCFFDABM1DGB14756

LIGHT GREEN METALLIC

over tan leather interior. 510-hp, DOHC 5.9-liter V-12; six-speed automatic transmission. As seen at RM Sotheby's, this car is less than 2,300 miles from new. It debuted at Aston's official centenary celebration at Kensington Gardens, London, in July 2013 then parked on the concept lawn at Pebble Beach. Though it was described a unique model, Zagato also built a DBS coupe and a Virage shooting brake for

2013 Aston Martin Centennial DB9 Spyder Concept by Zagato **Sold at \$693,000**

the same event. Beneath the Zagato coachwork is a 2013 Aston Martin DB9.

What was this buyer thinking? Aston Martin has been working with the Italian design house of Zagato for 50 years, and this car was built to celebrate Aston's 100th anniversary. It is unique but only in a marketing sort of way. Originally estimated at a value of \$380,000-\$450,000, this car brought a couple times more than what the average new house in the U.S. sells for. Sure, it's pretty, but we don't see it appreciating like a classic Duesenberg.

PHOTOGRAPHY COURTESY OF BONHAMS, RM SOTHEBY'S, RUSSO & STEELE AUCTIONS



S/N S680774

PASTEL BLUE OVER

two-tone blue leather interior.

160-hp, DOHC 3.4-liter inline-six; four-speed manual transmission. As seen at Bonhams with very good paint, excellent chrome, and other brightwork. The interior shows well. The engine compartment is clean.

The seller has provided a Jaguar Daimler Heritage Trust (JDHT) certificate that attests to the car's authenticity. Fewer than 2,800 XK120 FHCs were produced over three years; this one was originally exported to California, where it was painted black over red. It is said to have been restored in 1994 and again in 2009 by XKs Unlimited. It appears to be all about the color with this Jag, but the overwhelming blueness—including painted wire wheels—is not everyone's first choice. This is a value price for a car that might have been higher had it been in its original color scheme.



1953 Frazer Nash Le Mans Replica replica **Sold at \$220,000**

S/N 400/1/566

BRITISH RACING GREEN

over green leather interior. 150-hp, DOHC 2.0-liter inline-six; four-speed manual transmission. As seen at Bonhams with very good paint and good brightwork, plus tidy under the hood.

In the early 1950s, Frazer Nash built a car called the Le Mans Replica. This celebrated a factory-built racing car that finished third at the 24 Hours of Le Mans in 1949. About 50 examples of the Replica were created, and this car is a replica of those Replicas. Confusing, but it's worth noting that this is one of six replicas built in the 1970s by Crosthwaite & Gardiner, and it features a correct 1949-style Bristol engine. Sold new to Australia, where it campaigned in vintage-type hill climbs. Crosthwaite & Gardiner is known for quality restorations and re-creations, so it brings value even to a replica.



S/N AM109A1.1146

MEDIUM-GREEN METALLIC

over black leather interior. 255-hp, DOHC 4.0-liter inline-six; five-speed manual transmission. As seen at Bonhams, this Mistral is in non-running "barn find" condition; it needs attention everywhere. The seats have been re-trimmed in vinyl, while the leather that remains is more rock hard than glove soft.

Selling for close to three times its low auction estimate by Bonhams, this Mistral would have been considered a parts car 10 years ago. It's possible to attempt a restoration of this car with its beautiful Frua-designed bodywork, but we haven't even talked about the visible rust, and there is plenty. Restorable only as a labor of love, where you do all the work yourself and charge 50 cents per hour for the ultimate tax write-off. More likely this purchase is off to a cheap restoration shop in Eastern Europe or South America.



1970 Ford Mustang Boss 302 **Sold at \$85,250**

S/N 0T02G109687

BRIGHT YELLOW OVER

black vinyl interior. 290-hp, OHV 4.9-liter V-8; four-speed manual transmission. As seen at RM Sotheby's, a concours-quality restoration with excellent paint and graphics. Inside, it's as nice as the day it was delivered new.

Complete with a Marti report and original dealer's invoice, this Boss 302 was judged at 690 points out of a possible 691 at a meet held by the Mustang Club of America. The car, which was delivered new to Canada, had the engine block replaced under the factory warranty in January 1970. A new engine block was what you wanted back then because the old one had failed. Sadly, it keeps this from being a numbers-matching car. Nevertheless, a great value on a Boss, evidence that American cars at Monterey are not necessarily there just to bait auction newbies.



S/N ZFFSG17A8K0082752

BLUE CHIARO METALLIC

over cream leather interior. 380-hp, DOHC 4.9-liter V-12; five-speed manual transmission. As seen at RM Sotheby's, this two-owner car is documented to have 2,025 miles on the odometer. Another almost new car that dates back 25 years.

Said to have been originally delivered by Ferrari of Houston, this Testarossa lived in Houston with its original owner until recently, when 1989 Ferrari Testarossa **Sold at \$220,000**

it was sold with tools, service and owner's books, and a clean Carfax. The

value of the Testarossa—once thought to be too much like an outtake from "Miami Vice"—has been steadily climbing. Oddly enough, buyers value color combinations other than the classic red that was so popular when the car was new. (Testarossa means "redhead.") Another poke in the eye for the people who insisted the Testarossa would never be collectible, especially at this price point.



S/N 6S69B99456620

WHITE WITH RED VINYL

top over red leather interior. 170-hp, OHV 5.7-liter V-8; four-speed automatic transmission. As seen at Russo and Steele, this limited-production two-door convertible was created from a Cadillac Seville four-door sedan. Wire-basket wheel covers with spinners were added.

This car appeared at auction while joined at the hip with a 1978 Cadillac Seville Opera Coupe, a 1979 Cadillac San Remo Convertible **Sold at \$11,825**

two-door made from the same Cadillac Seville sedan as the San Remo convertible, and it

went for \$13,750. Because the stars lined up right, this was a rare opportunity to see two of the more popular combinations of what people did to their otherwise helpless Sevilles in the 1970s. Both are best described as an acquired taste, and both took a good bit of skill and craftsmanship to make, although neither has aged well over the past 35 years. When the aliens land, perhaps they will give us extra credit for these Clénet-style retro luxury cars.





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▼ Victor (TX) "Women notice me more. I have noticed an increase in confidence. Casanova and 12/1/86; Newsweek 1/12/87) Don Juan are 2nd and 3rd to me!"



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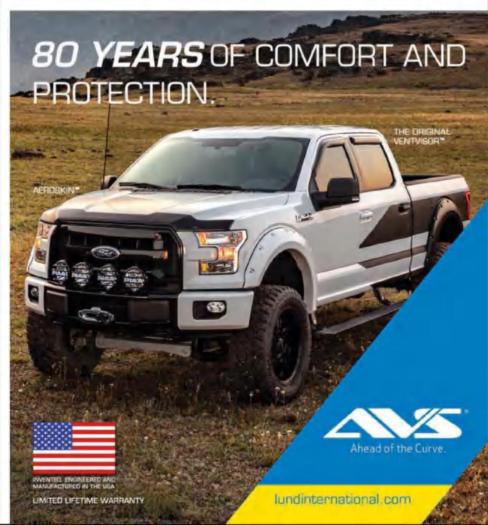
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CATCHING UP WITH

LORIS BICOCCHI

TEST DRIVER,
BUGATTI AUTOMOBILES



On September 1, 2014, Bugatti

officially appointed Loris Bicocchi, 57, as its test driver charged with developing the Chiron hypercar, the Veyron's replacement. This is another chapter in a remarkable career for Bicocchi, quiet and considered but with an infectious passion.

LB: I am here in Nardo [the Porscheowned test facility in southern Italy] for another two weeks. We have six cars, and four of them are for me, so I jump from one to the next to the next. Then I fly to Michelin to try the newest tires, home for a few days, and then some more testing in another part of the world.

AM: Your job sounds incredible. How has your career brought you to this role?

LB: We can start from 1974 when I started at Lamborghini [in the R&D warehouse, then became a mechanic in 1975]. I stayed until 1989 and achieved my life dream to become a test driver there. I was attracted by the new Bugatti—the EB110 was coming—and I received a phone call from Paolo Stanzani, the technical director. He said, "When are you coming to me? We are here waiting for you." Bugatti was really attracting me because I knew they were thinking about four-wheel drive, turbochargers, a carbon-fiber chassis, and many, many things I didn't know yet. I learned a lot, a lot, a lot. I understood what it was to tune a car, tune suspension, tune tires, to tune an engine.

AM: So that was where you became the test driver you are today?

LB: You never stop learning. When Bugatti ended in 1995 I moved to Monte Carlo. I spent a couple of years with the Monaco Racing Team, and we did some races with the EB110 Super Sport Competizione. After that I met Jochen Dauer, and together with him we worked on the Porsche 962 road car. One car was sold to the sultan of Brunei, and I was asked to deliver the car. I'd heard so much about his collection, this person. The sultan had something like 2,000 supercars, and many were unique. You can imagine for me, staying in this village, it was like I was dreaming. I met the boss, and he understood that I knew Lamborghini, I knew Bugatti—he had five Super Sports—so he asked if I could go back to test the cars, fix any problems. For me it was a very, very nice time. I could, for example, take a McLaren F1 for a drive when I wanted. It was crazy. When I was back from the sultan. [Horacio] Pagani contacted me. He was just starting with his project, and of course Horacio and I knew each other already for a long time from Lambo. He proposed to me to develop the Zonda.

We spent a few years together, starting from white paper. You work with Pagani and you know what perfect means.
Then afterwards I was at the Paris show and I saw the first prototype of Koenigsegg. I met Christian von Koenigsegg, we discussed a little bit, I was attracted by the suspension, the long arms, so then I moved to Sweden to help. At the same time, in 2000, Bugatti got in touch about the Veyron. It was a difficult situation, but in the end I was spending 80 percent of my time with Bugatti and 20 percent with Koenigsegg.

AM: What do you bring to a project? How can you implement those qualities and yet ensure each car has a unique personality?

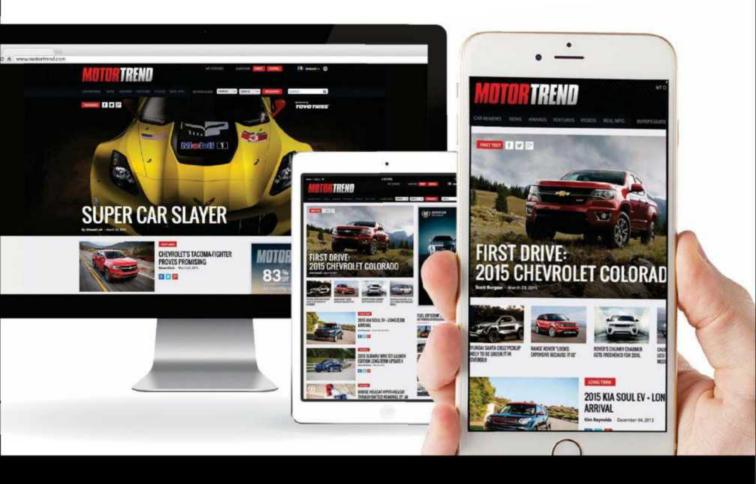
LB: For me, I realized day by day that the secret is to follow the personality of the car. If I tried to make the Koenigsegg like an everyday car ... for me it's not possible. The car itself is created with an idea. It is brutal, a monster, and that must be the focus. You must follow what the car is telling you. For example, the Zonda you can drive every day. The engine, the suspension, and the cockpit, the central idea of the car creates this. You cannot change the personality of the car but just follow what it's asking for. Can you understand what I mean? I think you must find solutions to make everything harmonic with the personality of the car.

AM: What's an average day like when you're testing at Nardo?

LB: Ha, oh ... I enjoy! No, I mean it depends what kind of activity. Personally I am more expert in chassis—including structure, suspension, uprights, wheel bearings, tires—this is normally what I did in my life. But now I cooperate in tuning engine response, transmission, playing with the four-wheel drive, rear differential, center differential. You have to combine everything together. So I'm sliding [the car] with four-wheel drive and trying to let the driver enjoy, a little yaw but not too big. ... I cannot say exactly what I will do tomorrow. I will be working on the electric steering for sure, on the suspension settings, but if someone from the transmission department asks me what I think about a new differential locking in power-on or lift-off, then I will do it. To take a big jump in power and keep the safety and the character of the Veyron Super Sport but enhance it in all areas ... it will be an interesting car.

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